17.0592.04000

FISCAL NOTE

Requested by Legislative Council
04/11/2017

Amendment to: HB 1178

1 A. **State fiscal effect:** *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2015-2017 Biennium		2017-2019 Biennium		2019-2021 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				$10,063,000		
Expenditures						
Appropriations				$15,000,000		

1 B. **County, city, school district and township fiscal effect:** *Identify the fiscal effect on the appropriate political subdivision.*

	2015-2017 Biennium	2017-2019 Biennium	2019-2021 Biennium
Counties			
Cities			
School Districts			
Townships			

2 A. **Bill and fiscal impact summary:** *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

Engrossed HB 1178 with Senate Amendments authorizes the creation of a statewide interoperable radio network, and increases the assessed communications service fee and the prepaid wireless emergency 911 fee.

B. **Fiscal impact sections:** *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

Section 1 of engrossed HB 1178 with Senate Amendments authorizes the creation of a statewide interoperable radio network and a fund in the State Treasury to receive revenues for funding the network, known as the statewide interoperable radio network fund. Section 4 of the bill authorizes counties and cities to increase the fee on all assessed communications services by $.50 per month per connection. Section 5 of the bill increases the prepaid wireless emergency 911 fee from 2% to 2.5% of gross receipts.

3. **State fiscal effect detail:** *For information shown under state fiscal effect in 1A, please:*

A. **Revenues:** *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

Section 4 of engrossed HB 1178 with Senate Amendments is expected to increase locally collected emergency fees by an estimated $9.6 million in the 2017-19 biennium. This amount must be deposited in the statewide interoperable radio network fund.

Section 5 of the bill is expected to increase the state-imposed and collected emergency 911 fee on prepaid wireless services by an estimated $463,000 in the 2017-19 biennium. This revenue is deposited in the prepaid wireless emergency 911 fund.

B. **Expenditures:** *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

C. **Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation or a part of the appropriation is included in the executive budget or relates to a continuing appropriation.*

Section 7 of the bill authorizes and appropriates a loan of up to $15 million from the Bank of North Dakota to the Information Technology Department.

Name: Kathryn L. Strombeck

Agency: Office of Tax Commissioner

Telephone: 701.328.3402

Date Prepared: 04/12/2017

17.0592.03000

FISCAL NOTE

Requested by Legislative Council
01/06/2017

Amendment to: HB 1178

1 A. **State fiscal effect:** *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2015-2017 Biennium		2017-2019 Biennium		2019-2021 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				$463,000		
Expenditures						
Appropriations						

1 B. **County, city, school district and township fiscal effect:** *Identify the fiscal effect on the appropriate political subdivision.*

	2015-2017 Biennium	2017-2019 Biennium	2019-2021 Biennium
Counties		$13,700,000	
Cities			
School Districts			
Townships			

2 A. **Bill and fiscal impact summary:** *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

HB 1178 authorizes increases in the assessed communications service fee and the prepaid wireless emergency 911 fee.

B. **Fiscal impact sections:** *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

Section 1 of HB 1178 authorizes counties and cities to increase the fee on all assessed communications services to $2.00 per month per connection. Section 2 of HB 1178 increases the prepaid wireless emergency 911 fee from 2% to 2.5% of gross receipts.

3. **State fiscal effect detail:** *For information shown under state fiscal effect in 1A, please:*

A. **Revenues:** *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

Section 1 of HB 1178 is expected to increase locally collected emergency fees by an estimated $13.7 million in the 2017-19 biennium. This amount assumes all jurisdictions that impose the fee raise it to $2.00 per month per connection. This is a $.50 increase per month for some, and a $1.00 increase for others.

Section 2 of HB 1178 is expected to increase the state-imposed and collected emergency 911 fee on prepaid wireless services by an estimated $463,000 in the 2017-19 biennium. This revenue is deposited in the prepaid wireless emergency 911 fund.

B. **Expenditures:** *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

C. **Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation or a part of the appropriation is included in the executive budget or relates to a continuing appropriation.*

Name: Kathryn L. Strombeck

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Date Prepared: 01/16/2017

17.0592.02000

FISCAL NOTE

Requested by Legislative Council
01/06/2017

Bill/Resolution No.: HB 1178

1 A. **State fiscal effect:** *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2015-2017 Biennium		2017-2019 Biennium		2019-2021 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				$463,000		
Expenditures						
Appropriations						

1 B. **County, city, school district and township fiscal effect:** *Identify the fiscal effect on the appropriate political subdivision.*

	2015-2017 Biennium	2017-2019 Biennium	2019-2021 Biennium
Counties		$13,700,000	
Cities			
School Districts			
Townships			

2 A. **Bill and fiscal impact summary:** *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

HB 1178 authorizes increases in the assessed communications service fee and the prepaid wireless emergency 911 fee.

B. **Fiscal impact sections:** *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

Section 1 of HB 1178 authorizes counties and cities to increase the fee on all assessed communications services to $2.00 per month per connection. Section 2 of HB 1178 increases the prepaid wireless emergency 911 fee from 2% to 2.5% of gross receipts.

3. **State fiscal effect detail:** *For information shown under state fiscal effect in 1A, please:*

A. **Revenues:** *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

Section 1 of HB 1178 is expected to increase locally collected emergency fees by an estimated $13.7 million in the 2017-19 biennium. This amount assumes all jurisdictions that impose the fee raise it to $2.00 per month per connection. This is a $.50 increase per month for some, and a $1.00 increase for others.

Section 2 of HB 1178 is expected to increase the state-imposed and collected emergency 911 fee on prepaid wireless services by an estimated $463,000 in the 2017-19 biennium. This revenue is deposited in the prepaid wireless emergency 911 fund.

B. **Expenditures:** *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

C. **Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation or a part of the appropriation is included in the executive budget or relates to a continuing appropriation.*

Name: Kathryn L. Strombeck

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Telephone: 701.328.3402

Date Prepared: 01/16/2017

2017 FINANCE AND TAXATION

HB 1178

2017 HOUSE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Fort Totten Room, State Capitol

HB 1178
1/17/2017
26965

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature Mary Brucker

Explanation or reason for introduction of bill/resolution:

A bill relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: Attachment 1-5

Chairman Headland: Opened hearing on HB 1178.

Representative Todd Porter: Introduced bill. This bill moves the fee from the 911 service on your phone bill to $2.00. It then takes $.50 of that total amount and puts it into a fund for the statewide interoperability programming process that we have been studying for the past few biennia. It would allow total interoperable communications across the state. We have situations where there is 75% coverage of portable radio to portable radio across the state so we don't have full communication capabilities. We have about 90% on mobile to mobile communications across the state. We run into situations where the ability to talk from responding group to responding group is hampered. We've taken the time over the past few biennia to figure out what it would take to have a statewide interoperable plan and this bill would take care of the local component of that plan. There is a bill in the Senate that would take care of the state's side of the plan. Estimates are between $100-200 million for the entire plan. It won't be done overnight; it will be phased in over a period of time in order to get it done. It would include doing some 800 megahertz trunking in some larger communities and then redoing our narrow band network in the more rural areas. There are more people following me to give you more information.

Representative Steiner: Do you know the fiscal note on the senate bill coming to us?

Representative Porter: I do not know.

Chairman Headland: Is there any testimony in support of HB 1178?

Mike Dannenfelzer, Director of the Central Dakota Communications Center (CenCom), Bismarck: Distributed written testimony. See attachment #1. (Ended testimony at 8:23)

Chairman Headland: Can you explain exactly what we're talking about? Will it generate any efficiencies versus what we have now?

Mike Dannenfelzer: The system is really a forklift of what we are currently using. In a state network in most cases we have 1970s technology. There have been advancements in technology; some FCC requirements that have been put into place and the providers have changed their equipment. These upgrades have been made in the state, however, there are a lot of downsides to these changes. There has been reduced coverage and when we try to increase that coverage it creates more interference between sites. The new system would provide the ability to roam throughout the state; it's based on trunking technology which is similar to how local telephone service built their systems years ago. You can have an unlimited number of talk groups. The technology in the background manages what people are using at any given time. There really isn't going to be any considerable consolidation without a better radio network to begin with. If you have several counties trying to consolidate the issue they would have to build a radio to be able to communicate throughout those counties and there is no system in the state that does that thoroughly today. The state radio system has three channels. The Bismarck Police Department uses three channels and the Bismarck Fire Department uses three channels. By adding additional channels, we are just going to create more interference without doing newer technology.

Chairman Headland: Will the purchase of the new system move towards efficiencies throughout the state? If we're looking at the amount of money we're talking about in this bill the efficiencies would be important for the committee to understand.

Mike Dannenfelzer: It will certainly create efficiencies and it will create greater safety for our responders.

Representative Steiner: Who is on the statewide interoperability executive committee? Where does the money go on this?

Mike Dannenfelzer: The statewide interoperable executive committee is made up of six state and six local members. I represent the 911 association, the adjutant general, state radio director, director of ITD, director of Department of Emergency Services, DOT, fire chiefs, police chiefs; it's a local and state mix of people. We have an agreement between all the counties and it's managed under the Association of Counties. We have a committee made up of nine members of the 911 Association that manages that fund. Each county contributes 10% of the funding for the next generation 911 program. We have two employees working on our behalf to consolidate 911 network in the state and to push more consolidation of technology as well to create more efficiencies. That committee would then sit on this fund and spend it based on the guidance of the statewide interoperable executive committee. The concern with a lot of local governments is that it is local funding; we want to make sure the locals still have some control on how that fund is being used. With this bill we would be able to accommodate phase one very easily in building out the core and replacing all the consoles tied to the core in all the PSAPs. It's already an established process we have with the counties; this would be setting aside a separate fund for the radio side of things.

Chairman Headland: Is there someone who is testifying today that can provide us with the list of who makes up that interoperability committee?

Mike Dannenfelzer: I believe the state radio director might have that. There's another bill that would be adding the Indian Affairs Commission on the senate side and he probably has a list of it there. We could get a copy for you today.

Representative Ertelt: You're asking to raise this communication service fee from 50-100% by law versus what was formally voted on by the people at the political subdivisions.

Mike Dannenfelzer: Yes, it would remove the vote. It would take an action of the governing body to assess the fee but if they assess the fee it would be two dollars.

Chairman Headland: Is there further testimony in support?

Kyle Kirchmeier, Morton County Sheriff: There is an ongoing incident in Morton County that has affected a lot of the state, especially the law enforcement and first responders that have come to Morton County to assist. Back in the 1970s and 80s the radio system the state radio had was analog which worked fairly well at that point with the towers that were available. After 9-11 then it went to a digital system. The difference between an analog system and a digital system is analog you can get skip and in digital you can get the traffic or you don't. Then it was narrow banded. The digital system reduced the range that the radios can reach. Then with the FCC requirement they narrow banded it so that again reduced it some more. To law enforcement and first responders it means the range in cars from radio mobile to mobile has decreased. At certain times you could see a car but not be able to talk to them and they could be a couple blocks apart. This causes a major issue. With state radio there is a repeater system that goes from tower to tower but then everybody gets that. This is what the interoperability was trying to get away from. With the incident in Morton County we tried to get channel one, which is a state radio channel, and have all the responding units from North Dakota but this wasn't encrypted so all of our radio traffic went to the protesters so they heard everything we were doing. We then got the radios encrypted but the coverage still wasn't there so we ended up using a Mandan PD channel and putting another repeater or antenna on a Morton County tower. We've reprogrammed radios of cars and squads coming in across the state three times trying to get this to work. The trunking system we're talking about would make a difference because you could have an unlimited number of units but everybody wouldn't be on the same channel when they're talking. This would help everyone out immensely. Right now there is issue after issue trying to communicate. In a couple years the radios will need to be replaced anyway.

Chairman Headland: Further testimony in support?

Chad Kaiser, Sheriff of Stutsman County: I'm in support of this bill. I've always known that our radio system was lacking. There have been incidences with the situation in Morton County and we need a different system. Everybody talks at the same time and nobody can understand it. We had up to 400 some cops on the ground in a situation with everyone talking at the same time. We had two different areas with two different commanders and one channel. The communication is very difficult. There are many different situations where many people can be asking for help at the same time and we wouldn't be able to assist because we wouldn't be able to understand the communications.

Chairman Headland: Further testimony in support?

Terry Traynor, Association of Counties: Distributed three different testimonies from different agencies in support. See attachments 2-4 from North Dakota 911 Association, Director of the Grand Forks Public Safety Answering Point, and a public safety information sheet. As a representative of the Association of Counties as well as the North Dakota County Commissioners Association we are supportive of this bill and of the SIRN project. We've been bringing this issue to the legislature for the last two sessions. Last session we had a proposal in House Appropriations to secure state funding to implement this. We were asked what it was and how it was going to be funded. They gave an appropriation of $1.5 million to ITD and get a professional consultant to develop a plan and that is what was done. The state interoperable committee hired a consultant and they did a thorough study that was vetted back out of that group to the law enforcement, EMS, fire, and all the state agencies involved. They came up with the right direction for us to go in North Dakota. The finances in North Dakota have changed a lot within the last two years. There are two parts to this; 80% state and 20% local government. This bill is for the local cost. SB2204 is the senate bill that looks at state costs. Hopefully with the two together we can move this project along. This is probably a ten-year implementation to get the program out. There are 22 dispatch centers in the state and we are collapsing them technologically. The timing is critical because the radio consoles, the base stations in the 22 PSAPs, over half of those are set to go end of life in 2018. We need to replace those. We want to replace them together and under a plan that has broad support. We are an island in our region because everyone has already moved in this direction. When you look at the country as a whole it becomes even more pronounced. Most states have gone into a trunk system for many of the same reasons we are talking about today. It's time that we move into the next century or next decade and implement this. This is our best option to move forward. No one likes a new fee or a new tax but it is what we have available and we need to move now before this equipment goes to end of life.

Chairman Headland: Did the other states take the same approach to funding this?

Terry Traynor: My understanding is the other states went through their state's general fund for the core infrastructure. We could do some research to find that out.

Representative Hogan: Would this plan establish a statewide trunk system?

Terry Traynor: That is the proposal. It uses two different modalities; 800 megahertz which is good for penetrating buildings like the capital and a more traditional system in the rural areas but because it was trunked one could communicate with the other.

Representative Hogan: What happens if we pass this bill and don't pass the other bill?

Terry Traynor: It would take longer to replace the consoles and the core network but we could still move ahead.

Representative Hogan: Particularly on the radios at the local side?

Terry Traynor: Yes.

Representative Ertelt: Can you tell us how much is currently being raised with the fees?

Terry Traynor: There is a statutory committee that is required to report to legislature every two years on that issue. The most recent report is calendar year fifteen and the fee totaled $12,341,000.00. Some of the fees have changed since 2015 so I would suspect it has gone up some but not much. That doesn't cover everything that goes on with emergency communications now; that fee covers about 2/3 of it according to the statutory committee's report and 1/3 of that was made up from property tax.

Representative Ertelt: Does the $12.3 million only cover the communications fee or does it also cover the 911 fee?

Terry Traynor: I believe the $400,000 is the impact of that ½ percent increase on the prepaid which is collected at the state level rather than remitted locally.

Representative Ertelt: The $12.3 million would cover both of those?

Terry Traynor: Yes.

Chairman Headland: Is this fiscal note reflective of all new money?

Terry Traynor: That is my understanding.

Chairman Headland: It would be the $12.3 million plus. Can you tell us how the 911 fees are distributed across the state?

Terry Traynor: The fee is allowed to be up to $1.50 on traditional land-line phones, traditional contract mobile phones, cellular devices, and basic internet protocol. In North Dakota every jurisdiction has a fee and it's either $1.00 or $1.50 depending on where they are going. Roughly 60% of the population is paying $1.50 and roughly 40% are paying $1.00 right now. That fee is remitted directly to the county that is imposing it. All counties contribute $.10 of the first dollar to a statewide project to implement next generation 911 which has been going on for the past four years. That $.10 is remitted to the Association of Counties because we hire the staff for the 911 Association. If they are a state radio county then they also have a percentage of that dollar that must go to state radio because they are contracting with state radio to serve as their dispatch center. The prepaid service is charged two percent at the point of sale.

Representative Schobinger: It seems to me that we're being asked to make some big changes. Do you remember why we required a vote to do these types of things? If we took away that requirement to vote but leave the fee where it's at it seems to me that revenues would increase dramatically.

Terry Traynor: It was in the late 1960s when 911 came to North Dakota and not everyone wanted it and it became a local decision on whether or not they would have it. In order to implement a 911 system you have to have a vote and with that came a fee of $.50 at that time which was later moved up to a dollar. Rather than making it a statutory $2.00 and left

that up to the governing board to move it up you would still have to change the law to make sure they could go to two dollars. There would be no money in the majority of the large counties because they are already at $1.50 and they are spending $1.50 to maintain their dispatch center. Moving to $2.00 is essential if we are going to fund the interoperable radio network. The logic behind this bill is that we want everybody in.

Representative B. Koppelman: Why do we want to do away with the voting process? If you have the $.50 language and the $2 cap you could leave the rest of the bill the way it is and then those counties that currently collect $1 if they needed the $1.50 to pay their share of this project they could go to their voters and get the other fifty cents.

Terry Traynor: I think it could still work. The concern would be if the voters didn't vote for the increase of fifty cents. The concern was that we didn't want anyone to be shorted their operating dollars.

Representative B. Koppelman: If we as a legislature states everybody is paying their $.50 to the state so the cap is going to $2, if you were at $1.50 because of what your local voters said you are now at two dollars. If you were at $1 because of what your local voters said you are now at one dollar fifty cents. Either way that $.50 has kicked in and everybody has to participate. If we leave the power in the voters' hands in those counties is that going to be okay?

Terry Traynor: We never looked at it that way. That could work. You could set the $2 cap and everybody that's anywhere moves up $.50 tomorrow but if you want to go beyond that you have to go to the voters.

Chairman Headland: Are all counties on the record of being in support of this?

Terry Traynor: All the counties approved a resolution in support of this.

Chairman Headland: Is it true that voters have never turned down a request for 911 fees?

Terry Traynor: There has been several isolated places where they've turned down a most recent vote from one dollar to one dollar fifty cents.

Representative Olson: In the fiscal note it states that all jurisdictions impose the fee and raise it to $2.00 per month; a $.50 increase for some and $1 for others. In that dollar increase only $.50 of that would be going to the $13.7 million, correct?

Terry Traynor: That's correct.

Representative Olson: Where would the other $.50 go?

Terry Traynor: That is under current statute and it would go to their local government for the operation of their 911 system. Our estimate is based on a current mix of dollar and dollar fifty and of that $13 million about $4.1 million would be moving the $1 to the first $.50 for the others.

Chairman Headland: The $13.7 million is a combination of the $1 increase and the $.50 increase so it all would be going not just the fifty cents.

Representative Olson: The phase-in period of time is estimated to be about 10 years. Do you anticipate acquiring other funding sources other than this fee in order to accomplish that 10 year timeline?

Terry Traynor: The combination of the state funding bill and this funding bill would allow for the implementation and the long term maintenance of the system.

Representative Hogan: What is the source of the funding for the statewide bill?

Chairman Headland: We need to remain focused on the bill at hand.

Representative Olson: I would assume that the increase would continue to be covered by property tax and none of this increase would go towards making up that last one third that is not being met?

Terry Traynor: My assumption would be that if we're raising the first $.50 on some of those counties by $4 million some of that would be writing down the property tax subsidy in those counties.

Chairman Headland: Is there further testimony in support?

Blake Crosby, North Dakota League of Cities: Distributed written testimony. See attachment #5. We are very much in favor of this $.50 increase. We are always concerned with return on investment whenever we look at a fiscal note. It's hard to put a price tag on return on investment when we're talking about citizens' safety so I would urge you to keep that in mind. We definitely need a statewide system.

Chairman Headland: Is there further testimony in support?

Duane Shell, Information Technology Department: I represent the state CIO on the SIEC. I would be happy to answer any of the questions relating to the project. One question was on the committee. I can provide you with a full list. SB2050 is proposing a revision to the current make up of that committee. The revision would be to add the Indian Affairs Commissioner to the committee to provide more tribal input into the process.

Chairman Headland: Is there further testimony in support? Is there any opposition to HB 1178?

Representative B. Koppelman: I would suggest that we add the $.50, raise the cap to $1.00, and whether those places are currently charging $1.00 our action would send them to $1.50 and those that were already charging $1.50 our action would send them to two dollars. We can say that $1.00 or $1.50 portion of that is set by taxpayers. Those subdivisions that are at $1.00 now could go up to $1.50 local plus our $.50 that we're putting in to a total of $2.00 but that would be up to their voters. This makes it too easy to do away with local input

so I'm not in favor of that. I am in favor of the $.50 to deal with the statewide radio needs. I will have those amendments prepared.

Chairman Headland: Does anyone agree with Larry Severson and agree to work with Larry on that amendment?

Vice Chairman Dockter: During the interim we tabled it; we didn't come up with a recommendation. We kept going back and forth on this subject for several meetings.

Chairman Headland: The bill has merit but I just don't know how to get past the fiscal note. I know when it comes time to balance the budget there's no room for almost $50 million of lost revenue. I think appropriations would appreciate it if we did something with the bill rather than burdening them with it. We can address this now or take it up later this afternoon. We'll take a look at it later. Meeting adjourned.

2017 HOUSE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Fort Totten Room, State Capitol

HB 1178
January 25, 2017
27400

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature Mary Brucker

Explanation or reason for introduction of bill/resolution:

A bill relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: Attachment 1

Chairman Headland: Opened meeting up for discussion. As I look at the bill it appears the $.50 is forever or until the commission could by their vote lower it. Is the type of equipment we're talking about voice capable only or is it bigger or will it be able to do more than that? I'm trying to figure out what can cost $150 million?

Terry Traynor, Association of Counties: It is really a voice system. On the surface it wouldn't look much different than the one now with the personal radios, mobile radios, cars, fire trucks, and such. The difference is really on the back end rather than individual islands of a base station, dispatch center, all the towers and things. It would be one central system that would probably have two cores; one in the east and one in the west that would be wired together then wired to all the towers collectively. It's really talking about changing out our voice capable radio system to something that is better and can penetrate concrete better.

Representative Olson: This is something that is being used in surrounding states?

Terry Traynor: This is something being used in all the surrounding states and the Canadian provinces as well.

Representative Olson: Would ours be able to operate with their systems?

Terry Traynor: That is a bit beyond my understanding but I've been told that true. That is essential to the Cass County involvement in the project because of their multi-state dispatch. They intend that their radios will be working across the state lines.

Representative Olson: As far as the roll out goes, this won't provide with much for getting this going. If this passes and the one in the senate passes is there a regional deployment plan to get it somewhat functional?

Terry Traynor: Regionally yes but there are also core components that are essential for state wide. Some of the core then regionally bringing in the consoles; the local nodes as those jurisdictions are ready for that and as the money is available. The important thing is if we work together we can bid the project and hopefully get a lot lower cost rather than have each go off on their own direction.

Chairman Headland: The project will be bid. Is it specific to one company or one manufacturer?

Terry Traynor: That is correct, it will be bid.

Vice Chairman Dockter: In the bid process the various groups would be together to come up with a bid or do you already have a council that does other bidding for equipment you've done in the past?

Terry Traynor: Both this bill and the other bill focuses on the recommendation of the Statewide Interoperable Executive Committee chaired by ITD which includes six states and seven local entities to represent all the groups.

Chairman Headland: What's the status of the senate bill?

Terry Traynor: I'm not sure.

Representative Steiner: On the original bill you took out the vote of the electors so they could eliminate. I have an amendment in front of me that puts it back in. That doesn't mean they can decide they'd rather not belong. Doesn't everybody have to be in at this rate because we are all benefiting?

Terry Traynor: I'm not aware of the amendment.

Representative Steiner: You have that in the original bill so can you stick to that?

Terry Traynor: In the original bill, yes. The concept was moving everybody to dollars. That eliminated the vote. There are amendments to go the other direction.

Representative Hogan: This is really expensive but I think the safety net issues particularly in crisis times there is a lack of communication. The appropriations committee said to move in this direction although the detailed plans were not done and we didn't support it because there wasn't accountability. I think the detailed plans are now in place.

Terry Traynor: It is expensive. It was also pointed out to the SIEC by the consultant Highway Patrol, Game and Fish, state radio, counties, cities, and fire we're spending a significant amount of money every year anyway. Over the next 10 years we're going to be spending in excess of $100 million to replace and keep our current systems going because a lot of them are reaching end of life. It's going to take more and that's what we're hoping for in this bill.

Representative B. Koppelman: In front of you is an amendment that I had prepared. I made one small change to it that you'll see in red. Distributed proposed amendment 17.0592.02002. See attachment #1. This bill leaves the current system for assessing local fees that the locals use for their own purposes to the way it was. That way was they go to the vote of the people and collect the amount the people approve. The lowest across the state is $1 with some being at $1.50. This would keep us out of the business of setting those fees for the locally collected amounts. In section two it requires an assessment or $.50 be added to whatever you're collecting now in every single county and earmarked for this exact project. That fee in the amended version of the bill would never go away unless the legislature decided to take it off. That way everybody would have to participate.

Terry Traynor: I think this accomplishes the primary goal to find the new $.50. It preserves the local voting on the rest of it. It puts the power back to the voters. We can work with this.

Representative B. Koppelman: **Made a motion to adopt the amendment 17.0592.02002.**

Representative Olson: Seconded

Chairman Headland: Discussion?

Representative B. Koppelman: That is including the red line change on the first page.

Chairman Headland: We're going to have to go through the process of changing that, we just can't change that without a motion. Or we could wait to get an updated version and vote on that. (Legal intern was offering suggestions on the amendment but she wasn't at a microphone so it was inaudible)

Representative B. Koppelman: If I make the motion to move 2002 with the words "a fee up to $1.50 per month per communication connection" struck then that would be a normally allowed amendment.

Chairman Headland: Council has this number and the original draft so that is what they are working off. If we're going to further amend then we have to take action by motion to further amend.

Representative B. Koppelman: Then this motion would just be on 2002 and the further amendment would be separate.

Chairman Headland: I think it has to be. We have to be on the record reflecting that we further amended.

Representative B. Koppelman: We could get thoughts from Mr. Traynor on his thoughts on the second piece of amendment. Council told me that the way they did it was exactly what I wanted it to do. The only reason for the additional amendments was concerns that came up from interested parties. They were afraid it was cloudy because they left in the $1.50 on top. In essence you could have $2.00 assessed in some with the language below it. Rather than sending it back to council I thought we could fix it here.

Chairman Headland: I think we all understand what we're trying to do here. I think we can get it done how we need it done.

Representative Ertelt: There are some political subs who are already assessing at the $1.50. If they didn't want to increase up to $2.00 would they

have to vote to reduce it to $1.00 then the additional $.50 would go to the interoperability?

Representative B. Koppelman: Yes, because at some point in the past they told the voters they wanted $1.50 for this purpose then the voters said that was their new set rate. It is by a vote of the people to go up or down in the new subsection four but it was subsection three before. If that was their goal, then this bill would put them to $2.00 if they are currently at $1.50 then with the next opportunity for an election they could lower that back down. Their local share was $1.00 and their state share is $.50 to get back to a total of $1.50. We just wanted to get the $.50 for the radio project.

Representative Ertelt: The concern I have with this is the current rate that is assessed they would have to do nothing and there would be an additional $.50 tacked on which doesn't go to a vote. I don't think it fully addresses the concern that some had to bypass the electors.

Representative B. Koppelman: None of the testimony we received on this bill was in opposition of a higher fee or an opposition to the state radio program this is funding. This portion of it without a backup plan won't happen without this money. The state radio program is a state initiative but it has two components; a large infrastructure component like towers and such that doesn't relate to this bill and it has a local component that deals with hand held radios and things of that nature which is what this bill is about. Even if you're against this bill the amendment makes a lot of sense because it maintains the most local control. The issue would then be whether or not you're against the concept in the original bill or not which would assess the fifty cents.

Representative Ertelt: I'm not opposed to the statewide system but I am opposed to increasing the rate without the electors having a say in it. The amendment and the bill would do that.

Representative Toman: The current rate doesn't always pick up the cost of that so it's in your property tax anyway.

Representative Hogan: Do you want a motion to re-amend 2002 to reflect what is in red so it's in the record? We either have to withdraw that motion or re-amend it somehow.

Representative B. Koppelman: I would like to amend my motion. **WITHDREW MOTION TO ADOPT AMENDMENT 2002.**

Representative Olson: WITHDREW SECOND MOTION

Representative B. Koppelman: I'd like to **propose a new motion to adopt the amendment 2002 and striking the language on line two of the first paragraph saying, "a fee up to $1.50 per month per communication connection." Then we need to unstrike "a fee."**

Representative Olson: SECONDED

Chairman Headland: Discussion?

Representative Schobinger: If we pass this strike then the bill as amended will still have the fee of $2.00 in it, correct?

Representative B. Koppelman: This bill is being hog-housed so the entire old bill is junk and this would be the new language.

Representative Ertelt: Can you explain to me what you were saying before?

Representative Toman: A lot of counties, maybe all of them, that fee doesn't cover their entire 911 operation of emergency services so the remainder of that is picked up in your property tax when they pass that budget in your local subdivision.

Representative Olson: In my notes someone said 2015 revenues the existing fee brought $12,349,000 which was only 2/3 of the requirement and the excess was covered by property tax. With everything as is we are just adding another $.50 fee to what they are already doing so that situation won't change. There's still $6.3 million that is continuing to be covered by property tax of the existing obligations that the counties have.

Chairman Headland: Any other questions on the motion to amend?

ROLL CALL VOTE: 13 YES 0 NO 1 ABSENT

MOTION CARRIED TO ADOPT 17.0592.02002 AND FURTHER AMEND

Representative B. Koppelman: MADE A MOTION FOR A DO PASS AS AMENDED

Representative Olson: SECONDED

Chairman Headland: Discussion?

ROLL CALL VOTE: 11 YES 2 NO 1 ABSENT

MOTION CARRIED

Representative B. Koppelman will carry this bill.

17.0592.02003
Title.03000

Prepared by the Legislative Council staff for
House Finance and Taxation Committee
January 25, 2017

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1178

Page 1, remove lines 5 through 24

Page 2, remove lines 1 through 31

Page 3, replace lines 1 through 5 with:

"**SECTION 1. AMENDMENT.** Section 57-40.6-02 of the North Dakota Century Code is amended and reenacted as follows:

57-40.6-02. Authority of counties or cities to impose fee on assessed communications service - Procedure.

The governing body of a county or city may impose a fee on all assessed communications services in accordance with the following requirements:

1. The governing body shall adopt a resolution that proposes the adoption of the fee permitted under this section. The resolution must specify an effective date for the fee which is no more than two years before the expected implementation date of the emergency services communication system to be funded by the fee. The resolution must include a provision for submitting the proposed fee to the electors of the county or city before the imposition of the fee is effective. The resolution must specify a fee that does not exceed one dollar and fifty cents per month per communication connection and must be applied equally upon all assessed communications services. Prepaid wireless service is not subject to the fee imposed under this section.

2. A political subdivision shall add a fee of fifty cents to the fee imposed on assessed communications services established under subsection 1. The additional fifty cents per communication connection must be dedicated to the political subdivision obligation to the statewide interoperability radio network and remitted to the governing joint powers entity established under chapter 54-40.3 for the purpose of implementing a statewide interoperability radio network. The funds collected under this subsection must be expended in a manner consistent with the recommendations of the statewide interoperability executive committee.

3. The question of the adoption of the fee must be submitted on a petition on which the petition title of the proposition includes the maximum monthly rate of the proposed fee authorized under subsection 1. The question of the adoption of the fee may be submitted to electors at a general, primary, or special election or at a school district election if the boundaries of the school district are coterminous with the boundaries of the governing body adopting the resolution proposing the adoption of the fee. The fee is not effective unless it is approved by a majority of the electors voting on the proposition. The ballot must be worded so that a "yes" vote authorizes imposition of the fee.

2012

~~3.~~4. Once established by this section, the maximum fee may be increased, decreased, or eliminated by a majority vote of the electors. The question may be placed on the ballot of any general, primary, or special election by a resolution of the governing body, or by a petition signed by ten percent or more of the total number of qualified electors of the political subdivision voting for governor at the most recent gubernatorial election and submitted to the governing body. By action of the governing body, the fee amount collected may be adjusted, subject to the maximum approved by the voters, to meet the costs allowed by this chapter.

~~4.~~5. In any geographic area, only one political subdivision may impose the fee and imposition must be based on the subscriber service address.

~~5.~~6. In the interest of public safety, where the subscriber's telephone exchange access service boundary and the boundary of the political subdivision imposing the fee do not coincide, and where all of the political subdivisions within the subscriber's telephone exchange access service boundary have not complied with subsection 1, and where a majority of the subscribers within the subscriber's telephone exchange access service boundary have voted for the fee, a telephone exchange access service subscriber whose subscriber service address is outside the political subdivision may receive 911 services by signing a contract agreement with the political subdivision providing the emergency services communication system. The telephone exchange access service provider may collect an additional fee, equal in amount to the basic fee on those subscribers within the exchange boundary. The additional fee amounts collected must be remitted as provided in this chapter.

~~6.~~7. A fee imposed under this section before August 1, 2007, on telephone exchange access service is extended to all assessed communications services and will remain in effect until changed pursuant to subsection ~~3~~4."

Renumber accordingly

Date: 1-25-17
Roll Call Vote #: 1

2017 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1178

House Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: 17.0592.02002 + unstriking language "a fee" and striking language "a fee up to $1.50 per month per communication connection."

Recommendation: ☒ Adopt Amendment + further amend
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Koppelman Seconded By Rep. Olson

Representatives	Yes	No	Representatives	Yes	No
Chairman Headland	✓		Representative Hogan	✓	
Vice Chairman Dockter	✓		Representative Mitskog	AB	
Representative Ertelt	✓				
Representative Grueneich	✓				
Representative Hatlestad	✓				
Representative Howe	✓				
Representative Koppelman	✓				
Representative Olson	✓				
Representative Schobinger	✓				
Representative Steiner	✓				
Representative Toman	✓				
Representative Trottier	✓				

Total (Yes) 13 No 0

Absent 1

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Motion carried.

Date: 1-25-17
Roll Call Vote #: 2

2017 HOUSE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. 1178

House Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Rep. Koppelman Seconded By Rep. Olson

Representatives	Yes	No	Representatives	Yes	No
Chairman Headland		✓	Representative Hogan	✓	
Vice Chairman Dockter	✓		Representative Mitskog	AB	
Representative Ertelt		✓			
Representative Grueneich	✓				
Representative Hatlestad	✓				
Representative Howe	✓				
Representative Koppelman	✓				
Representative Olson	✓				
Representative Schobinger	✓				
Representative Steiner	✓				
Representative Toman	✓				
Representative Trottier	✓				

Total (Yes) 11 No 2

Absent 1

Floor Assignment Rep. Koppelman

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1178: Finance and Taxation Committee (Rep. Headland, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (11 YEAS, 2 NAYS, 1 ABSENT AND NOT VOTING). HB 1178 was placed on the Sixth order on the calendar.

Page 1, remove lines 5 through 24

Page 2, remove lines 1 through 31

Page 3, replace lines 1 through 5 with:

"**SECTION 1. AMENDMENT.** Section 57-40.6-02 of the North Dakota Century Code is amended and reenacted as follows:

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~~3.~~4. Once established by this section, the maximum fee may be increased, decreased, or eliminated by a majority vote of the electors. The question may be placed on the ballot of any general, primary, or special election by a resolution of the governing body, or by a petition signed by ten percent or more of the total number of qualified electors of the political subdivision voting for governor at the most recent gubernatorial election and submitted to the governing body. By action of the governing body,

the fee amount collected may be adjusted, subject to the maximum approved by the voters, to meet the costs allowed by this chapter.

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~~6.~~7. A fee imposed under this section before August 1, 2007, on telephone exchange access service is extended to all assessed communications services and will remain in effect until changed pursuant to subsection ~~3~~4."

Renumber accordingly

2017 SENATE FINANCE AND TAXATION

HB 1178

2017 SENATE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Lewis and Clark Room, State Capitol

House Bill 1178
3/14/2017
Job #: 29132

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature Jana Bellamy

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to amend and reenact section 57-40.6-02 and subsection 1 of section 57-40.6-14 of the North Dakota Century Code, relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: Attachment # 1, 2, 3, 4, 5

All Senators present.

Chairman Cook: Opened the public hearing on HB 1178. Attachment #1 was left on the table.

(0:00:40-0:04:10) Representative Todd Porter, District 34: Introduced HB 1178. It's the local component of the study of the SIRN 20/20 radio infrastructure bill. We've had many versions of funding and building the infrastructure to meet the needs of the citizens of the state. It was recently found evident of the need for the project. We found that almost instantly that our current radio system was inadequate to provide communications for the local EMS responders. Law enforcement had the priorities on the channels, when EMS was summoned to the site where the confrontations were happening; EMS had no radio communication with law enforcement. The repeaters were being used by law enforcement. The trunking system inside of the major cities, when they switched to the P25 system, the digital, and the narrow band. We found that we could have two people standing side by side and one would get the call out, the other wouldn't.

This side of it is the local side. The bill allows for an automatic 50 cents added to the telephone bills; to be used exclusively for the SIRN 20/20. If a community is at $1, it would go to $1.50. If it went to $2 it would need a local vote. This bumps the local component the 50 cents. Anything else where there is room inside the $2.00 911 tax has to be voted on by the locals. Expert testimony will follow.

Chairman Cook: Do you know what the total cost of this project is?

Representative Porter: I do not know.

Vice Chairman Bekkedahl: The 50 cent charge, that's on cell phones, it's not on all phones?

Representative Porter: yes, all lines.

Vice Chairman Bekkedahl: Been dealing with purchasing systems. Asked questions a long time ago about inoperability, are we all getting the same systems, do we connect to the state properly. How did we get this far, this long and not address it sooner?

Representative Porter: Connected at the bare minimum of what they needed. When we get through the last grouping, we were giving banks of channels inside of 20-30 that were all the same. All EMS radios are the same. Part of the problem now is when you get into the urban areas, you have problems with the power to penetrate into the buildings. They lost communication inside the Trade Towers because it wasn't able to penetrate in. We have found weaknesses within our infrastructure. This is one of the areas that this addresses. They can be in their vehicle and reach a dispatch center. They can't be at the scene and reach a dispatch center across the state.

Vice Chairman Bekkedahl: In your estimation, going to this, is going to solve issues for a long time, or is technology going to make it obsolete very soon?

Representative Porter: When the feds came out and said they're splitting frequencies because of the high demand and we're going to a narrow band and digital. If we could go back to wide band vhf frequencies, we didn't have near as many problems as we did now. It caused the base station spacing to be even closer than what it is. The repeater system and trunking came into play. I can't say this is going to solve it; for a long time in the future. We can't maintain right now. We can't expect good communication between emergency responders.

(0:09:00-0:14:00) Mike Dannenfelzer, Director, Central Dakota Communications Center: Handed out testimony #2 in support of HB 1178.

Chairman Cook: What do you mean by individuals and organizations have stepped up to help?

Mike Dannenfelzer: The SIEC resolution has a list of all of the members, which includes the public safety organizations. We've worked with legislators to develop bills to help put forth legislation for funding.

Chairman Cook: Not putting forth money? Does the state wide system include councils and other stuff needed at a local PSAP?

Mike Dannenfelzer: Within the business plan, most of the local jurisdictions have elected to pay for their own consoles. Must of what is talking about now is the core infrastructure equipment that everyone would connect to and use. Effort to tie everyone to one system.

Chairman Cook: You mean pay for their own consoles with their own 911 fees. How many PSAP's do we have today?

Mike Dannenfelzer: 21 or 22

Senator Unruh: How quickly will this fee schedule get locals on track for the dollars that they need.

Mike Dannenfelzer: The timing of the project would be under the state procurement rules, so depending on how quickly the RFP process and have the award and it built out. Obviously paying for it in 3-5 years is challenging. There are options to finance over 10-15 years. We intend to pay for it over time.

(0:17:00-0:25:20) Duane Schell, Director, Network Services Division, ITD: presented testimony #3.

Senator Unruh: You talked about the study and report received and how it looked at the different choices for implementation for different radio networks. Did it also include different funding methods and what were the different options?

Duane Schell: There is a section in the report that talks about what other states have done. I don't know if the report went to recommending a particular funding strategy. We were focused on the right solution, fiscally responsible and met the needs. There is a variety of techniques that are being used in other states.

Chairman Cook: Did the study by Televate look at the option of less PSAPS?

Duane Schell: That was not part of the scope of the study per se. I'm not sure if it would have impacted the project. The bulk of the dollars are in 2 general categories, towers assets and network capabilities. The radio assets that the public safety uses, in person or on vehicles. Councils as part of the project, small compared to the larger numbers being discussed.

Chairman Cook: You have 220 million in this project. Can you tell me how much is going to be spent in PSAP's? How much that is going to be spent in radios and towers.

Duane Schell: It is not broken down to that level of with the information I have here.

Chairman Cook: What's the life expectancy of the radios?

Duane Schell: Life expectancy of 10-15 years, depends on the speed of implementation and where we're buying on the life cycle, procurement strategies, right end of the life cycle to utilize. Ensuring that we sustain the operation side of this that includes ongoing maintenance and repair. To do incremental,

Chairman Cook: By the time we get this paid for, we're going to start all over again aren't we?

Duane Schell: Depending on speed of execution, that is a possibility.

Senator Unruh: For these dollars that are needed at the local level, was it considered to use current mill levy authority at the local level rather than access a new fee.

Duane Schell: The study didn't evaluate any local funded sourcing. The report talks about who's going to pay for what and to break up the different responsibilities of who's going to pay for what component, and how were going to break up the share of the total cost of the solution. How the local or state obligation was funded was not within the scope of the project.

Senator Unruh: What's the comprehensive payment plan is and how it will be structured as we move forward. If we don't pay for it in a timely manner and the fees will continue to stay on the books. I'm trying to get a comprehensive of the fee schedule at the local and state level.

Senator Laffen: Fees on phones, how do phones work anymore. My company has 80 cell phones and 110 desk phones. What of that will get charged the 50 cents? Do I get charged for my landline and my cellphone?

Duane Schell: That is correct.

Senator Laffen: I have not been presented anything that shows the cost. I'm staggered by this number. If I do the math, the end point numbers of $220 million, there are only 220,000 people who pay income tax, there are 440,000 filers half of them don't pay tax. If you divide that math for every single person that pays income tax in North Dakota, it's a $1,000 bill. I can't comprehend that in my mind. That we should be spending that much money on one item. I haven't been convinced yet that the system costs that much. Maybe the study shows that much, I've heard that it could cost between $25 and $220 million.

Duane Schell: When we are talking about public safety grade infrastructure that is designed to withstand the worst of natural disasters, to function regardless of the environmental. The $172 million is the complete total package. We didn't want to mislead anyone and give misinformation, believe the total number is pretty conservative. We've got a significant amount of data to support the numbers. The appropriations committees received more comprehensive information. The report has lots of details. There is a pilot project being talked about to potentially address one county for $26 million.

Chairman Cook: If I wanted to pick 5 counties, would the report give me the cost for those 5 counties?

Duane Schell: With a little bit of work we could come up with those numbers. The big caveat is the coverage capabilities. The models that we did were a state wide coverage, and we need to look at tower assets that would require an engineering study across the counties and if not contiguous would be an interesting number.

Chairman Cook: Was Televate directed to study the best way to deliver emergency services in the state of North Dakota. Or were they challenged with the study and how the current system needed to be updated.

Duane Schell: They were charged with trying to determine the best approach to provide public safety radio communications for the state of North Dakota.

Senator Dotzenrod: Is there one PSAP that is dedicated to covering the blank areas?

Duane Schell: The current makeup is a whole host of radio networks that serve a variety of local jurisdictions. The integration between those is done on a case by case agreements between jurisdictions. An overlay that exists across the state is a solution provided by State Radio. They serve a lot of the state wide responders and a number of local communities.

Senator Dotzenrod: Would that overlay network be a PSAP?

Duane Schell: Yes, State Radio does function as a PSAP.

Chairman Cook: How many counties does State Radio service?

Duane Schell: 24 is the signal I got.

(0:41:38-0:45:44) Kyle Kirchmeier, Morton County Sheriff: Appear in support of HB 1178, for the fact that some of the issues that have occurred over the years. Worked with three different types of radio systems; analog, digital, and now narrow band. In the 80's had 4 channels, now have 150. After 9/11 to switched to digital, cut down the service from tower to tower and car to car. Narrow band is even half that. Can see cars a block or two away, but can't talk to each other. It's a safety hazard.

During the protest, there were agencies from all over the state that came in. They all have different radios, with different frequencies. Our options were trying to get them reprogrammed, which we did probably three times to get them to communicate amongst each other. For the agencies that couldn't, we purchased about 150 portables purchased through State Radio. They would have to have a portable or be with someone that had a portable. If we continue without going to one system, we're going to have a bigger mess than what we have right now. Once the project is finished that it gets everyone on the same page. Once you go into different locations everyone can talk on the same incident on the same band.

It's a nightmare down in southern Morton county, we put up additional repeaters, cell phone towers, everything that we could do to get communication to work down there. The hilly terrain also made it difficult. Wanted to bring my concerns.

Chairman Cook: Does this bill take away your right as the sheriff to buy whatever radio system you want?

Sheriff Kirchmeier: I don't believe so, what it's going to do is that everyone will need to be on the same radios and the same frequencies together. What it does on the bill, the funding will be so that the small local who can't afford to buy radios that won't work together.

Chairman Cook: How are we going to get all of these departments on the same page and not take away their ability to buy what they want to buy.

Sheriff Kirchmeier: What it comes down to is that radios and the systems working together, in the trunking system can do that.

Chairman Cook: Morton county is now using state radio?

Sheriff Kirchmeier: Because of the CAD system to get on with the rest of the system, but have own dispatch for own daily use. Has county towers, two different frequencies. The biggest thing is to get it encrypted. In the protest area, the Standing Rock ambulance was in the camp, on channel 1 or 2, heard the police chatter through other radios and scanners. The encryption is important.

(0:49:27-0:52:20) Chad Kaiser, Stutsman County Sheriff: In support of HB 1178. In Stutsman, have the PSAP. We are up for getting new consoles. We do need a new radio system; it is very outdated. We have one tower, it's quite often the deputies will say the radios aren't working, tried used VRS system (Vehicle Repeater System), still can't hit the tower. It is definitely a hazard for the guys, when the radio needs to work, is when it doesn't work. We had issues with frequencies or people hacking the frequencies. One channel for 500 cops, trying to talk at the same time. We are to the point of, we need the consoles that will adapt to this system. Willing to spend the money to get the right system and right consoles. If we don't do this, a lot of PSAP will buy stuff that won't adapt.

Chairman Cook: Stutsman county, you're at a place where you have to replace consoles. As you make your decision, at any time are you going to discuss the option of going to state radio?

Sherriff Kaiser: We will probably not be going to State Radio. We have a pretty good PSAP, we also serve for other smaller counties in our area.

(0:53:00-0:56:30) Steve Dirksen, Fire Chief, Fargo: Recently had the state fire school in Minot. We had a meeting of the fire chiefs. One thing we hear about is recruitment and retention. It's difficult to keep the folks there that we need. When you have a fire, need lots of people to do the work that needs done. More and more communities are relying on mutual aid from surrounding communities. It's important for them to have a common communication system that's easily used. Across the state, we have a fractured system. We have 22 different PSAP's, all at different stages of life. Ten of the systems are at end of line in 2018. The 8 larger communities in the state have also joined MOU's with DES and provide technical service for hazardous materials and technical response out in the state where other communities can't afford that. We need to be able to communicate with the agencies requesting us. The system won't shut off, it will continue to work, but no longer receive software updates and parts. We could be subject to going to craigslist or EBay to find parts because the manufactures aren't making new replacement parts.

We've learned that over time, we all have the same hose coupling, so in theory you can stretch a fire hose from Fargo to Williston because we all have the same connection. It's time to look at having a seamless system across the state. The time to find out the system doesn't work isn't when it's a bad time, it needs to be done before hand.

Senator Laffen: I know the importance of the radio system. The argument is, are we spending the money wisely with that number. Are we spending the taxpayer's money the right way? If I approve the funding method, I'm writing a blank check.

Steve Dirksen: We have a group that is looking at this, I feel confident that the numbers are where they should be. We look at these very closely.

(0:58:28-1:01:43) Terry Traynor, Association of Counties: Appeared in support of HB 1178. Handed out testimony #4 from Becky Ault, Grand Forks 911. I want to address some of the questions raised. The proposal, study, and recommendations that came out of the SIEC is a wise investment. Last session we came to you as a group, and the legislator said, no, go study it. We spent two years and a fair amount of money to hire the consultant and due diligence on this. The important part of the study is that we're going to be spend $172 million whether this passes or not. Everyone is going to buy new radios, new consoles, and do what they think is best. We have to replace the radios. Several thousand dollars per radio and the tens of thousands of users. Going to spend a lot of property tax dollars. The fiscal note is $13 million and the fiscal note on the bill already passed was $6 million. That isn't going to pay for it, it's the states commitment. We need to do this together. The state's putting money in, we can buy off the state bid, or buy to meet the requirements.

Senator Laffen: Is the $170-$200 million, is that the all in price or just the state's share?

Terry Traynor: That's every radio, every connection, every phone line to every tower, every tower replacement. Handed out attachment #5. The difference between 911 and radios is when citizens need help, you call one of the 21 PSAP's and they are the initial contact out to the appropriate responder, normally by radio. The chairman's interest with consolidation fits with this whole product. The virtual PSAP's that are in North Dakota. All of the different PSAP's by June will be responding to telephone calls from them. They're end of life issues aren't as dire as the others. One of the two major groups of PSAP's. It makes sense. The calling in side has been moved to next generation with the 911 system. We can't erase any of the red lines until we do something with the system. With a trunked radio system, we're all on the same system, location becomes meaningless, you can direct the calls and radio traffic to a specific PSAP. We need to get to the same level as 011 with our radio communications.

Senator Laffen: How much of this system is being bought by the state and how much by the other departments?

Terry Traynor: The concept was that the state entity would go out for bid for the major components, like the 911 system, will have multiple servers or systems in different areas to all the state powers. On the local side, the handhelds. In our original envision, was 80% state, 20% local. Fargo PD and Cass County might be able to buy their handhelds, but Argusville Rural Ambulance couldn't. There was some anticipation that local radio purchasing wouldn't be from state collected money through this. What we see is money will have to go to the major system components and will have to buy the radios on the local front.

Senator Laffen: Where is the major portion been appropriated? Has it been approved this session?

Terry Traynor: You'd have to ask someone else. To me it's this bill and the other one. Last session gave the authority to study it.

Chairman Cook: I want a state radio, a 911 system and get the help I need no matter where I'm at. The 911 fee is very archaic. Eliminated a long time ago. Are we taking away county, sheriffs, their ability to buy their own radio system.

Terry Traynor: Where are you going to use a P25 standard? The backbone is going to have to be purchased together, but the radios that work will have a standard associated with them. Law enforcement, in order to use the system, will have to buy radios that work with the system. One of the discussion points was possibly as part of the bid, we would bid radios as well. That doesn't mean that Divide County has more do more with Canada, there's nothing that says they can't, except can't communicate with the rest of the state. Don't see any mandates that you have to buy.

Chairman Cook: Various jurisdictions across the state, but that's what makes the solution such a challenge.

(1:11:25-1:13:30) Blake Crosby, League of Cities: In support of HB 1178. Can we restrict the purchasing? League of Cities represents the fire chief association and the police chief association. I will work diligently with the two associations to make sure that everyone is on the same page. This is a state interoperable, not a county system. It is a state system and everyone needs to participate. I can assure you those first responders and law enforcement, understand that safety is primary. The municipalities will have some skin in the game. When it comes to public safety, nothing is more important, we all need to be able to talk to everyone.

(1:13:37-1:15:15) Joel Boespflug, North Dakota Fire Chief's Association: In support of 1178. Two hours ago, there was a basement fire in a downtown building. Because we lose the ability on these systems, we lost track of one of the team of fire fighters for a short time. Those pieces of equipment aren't cheap. Bismarck has 3 new fire engines arriving next month. Each of them has 4 portable radios, a mobile radio head com computer system. We're investing in a system because it's the only one we have because we're going to continue to have problems. Investing wisely the infrastructure we heard is a better investment.

Chairman Cook: Will the new radios on the new truck work with the new system?

Joel Boespflug: That is our problem, we believe we're on a frequency that is not allowing us to penetrate the buildings. And that where the system has allowed for a change of hardware. We would have to change frequencies. It's an investment we don't feel good about, but like the idea of sharing and utilize hardware.

Mike Lynk, Director, State Radio: My take on this bill is that once you pass the bill, we get the funding. We need to get started on gathering the money. This bill as written adds 50 cents to all phones. It starts revenue, and that's where my key point is.

Senator Unruh: What were some of the other revenue sources considered for the system?
Mike Lynk There were several things that were up in the air. One was an appropriation in ITD's bill and the governor didn't authorize the appropriation in the bill. So dealing with this

bill and also the bill that has to do with citations. Those are the two revenue bills that are designated for the SIRN project.

Senator Unruh: Either new fees or appropriations were the two that were considered. Was there a consideration of looking at local's current levy authority to round up some money for this project.

Mike Lynk: The study did look at a few things, but I'm not sure that it was addressed.

Closed the hearing on HB 1178.

2017 SENATE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Lewis and Clark Room, State Capitol

House Bill 1178
4/3/2017
Job #: 29891

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature Dana Bellamy

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to amend and reenact section 57-40.6-02 and subsection 1 of section 57-40.6-14 of the North Dakota Century Code, relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: No Attachments

Senator Dotzenrod absent. Committee work on HB 1178.

Vice Chairman Bekkedahl: Informed the committee that the House chamber is working on amendments that would satisfy some of the early concerns the committee had. One of them was the appropriations language since the companion bill was killed in the House. The SIRN project on the statewide level. We had concerns here about adding legislators to the Statewide Interoperability executive committee, which is currently without any. We talked about the legislative intent language in section 5 need to be tightened up to force compliance of purchases by the political subdivisions to the trunk system. That's being addressed in some discussion over there. The expiration date we talked about actually sun setting so that it doesn't go on forever. Those 3 things are being discussed over in the other chamber. That's the best update I can give you right now.

Senator Laffen: What they would like to do would require us to pass HB 1178. That's their intent, for us to pass HB 1178 which is the funding and they're working with the appropriation behind it.

Chairman Cook: Why don't we kill 1178 and let them do what they want to? Why do we need two vehicles?

Senator Laffen: I think that would actually make more sense, then the two bills aren't crossing each other. It would make more sense to put it all in one. I like that idea.

Chairman Cook: When will we be able to see the amendments they are working on?

Vice Chairman Bekkedahl: I was told that they are still working on them and possibly early Wednesday morning. My response to them was that we had to kick this out Wednesday.

Senator Unruh moved a DO NOT PASS on HB 1178.

Senator Laffen seconded.

Roll Call Vote was taken: 3 ayes, 2 nays, 1 absent/not voting.

Motion passed.

Senator Laffen will carry the bill.

2017 SENATE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Lewis and Clark Room, State Capitol

House Bill 1178
4/7/2017
Job #: 29985

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature Dana Bellamy

Explanation or reason for introduction of bill/resolution:

A BILL for an Act to amend and reenact section 57-40.6-02 and subsection 1 of section 57-40.6-14 of the North Dakota Century Code, relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: Attachment #1

Senator Laffen was absent. Committee work on HB 1178.

Chairman Cook asked for a motion to reconsider the action on HB 1178 in order to add amendments to the bill.

Vice Chairman Bekkedahl moved to reconsider. Seconded by Senator Unruh.

Roll call vote was taken: 5 ayes, 0 nays, 1 absent. Motion passes.

Chairman Cook handed out proposed amendments (attachment #1).

(0:01:35-0:05:15) Representative Nathe, District 30: Gave an overview of the proposed amendments.

Chairman Cook: One of my concerns when we had the bill was that it generated the revenue and how it was spent was in another bill. We know have it all in one.

Quick question pertaining to location of the fees in the bill. It wasn't realized only looking at amendments, not full bill.

(0:06:32) Vice Chairman Bekkedahl moved to adopt amendments 17.0592.03003.

Senator Meyer seconded the motion.

Roll call vote was taken: 5 ayes, 0 nays, 1 absent. Motion passed.

(0:07:11) Vice Chairman Bekkedahl moved a DO PASS, as amended on HB 1178.

Senator Dotzenrod seconded the motion.

(0:07:22-0:10:11) Committee Discussion

Clarified which lines will be charged the new fee, which is all lines, land and cellular. It was asked if out of state lines are assessed taxes and fees according to physical location of the phone or from the state of origin. Adding the expiration date was appreciated, along with the ending location of the funds and who would be in charge of them. The fee structure is a point of contention with some members.

Roll Call Vote was taken: 3 ayes, 2 nays, 1 absent.

Senator Bekkedahl will carry the bill.

CA
4/7/17
1 of 3

17.0592.03003
Title.04000

Prepared by the Legislative Council staff for
Senator Cook
April 6, 2017

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1178

Page 1, line 1, after "to" insert "create and enact a new section to chapter 37-17.3 of the North Dakota Century Code, relating to the creation of a statewide interoperable radio network fund, to"

Page 1, line 1, after "reenact" insert "subsection 1 of section 37-17.3-02.2, subsection 4 of section 54-59-05,"

Page 1, line 2, after the second "the" insert "statewide interoperability executive committee, the powers and duties of the information technology department, the"

Page 1, line 3, after the first "fee" insert a comma

Page 1, line 3, after the second "fee" insert "; to authorize borrowing authority; to provide an appropriation; to provide statements of legislative intent; to provide for a budget section report; and to provide an expiration date"

Page 1, after line 4, insert:

"**SECTION 1.** A new section to chapter 37-17.3 of the North Dakota Century Code is created and enacted as follows:

Statewide interoperable radio network fund.

1. A fund known as the statewide interoperable radio network fund must be maintained in the state treasury. Subject to legislative approval and statewide interoperability executive committee approval, moneys in the fund must be used for providing the required state share of funding for expenses associated with the purchase, installation, operation, and maintenance of a statewide interoperable radio network. The fund consists of all moneys transferred into the fund, interest earned on moneys in the fund, payments to the fund, and other fund earnings.

2. The chief information officer of the information technology department may apply for and accept funds, grants, gifts, or services made available for the statewide interoperable radio network by an agency or department of the federal government or any other person. Any funds, grants, or gifts, or moneys received from services received under this section must be deposited in the statewide interoperable radio network fund.

3. Revenue received by a political subdivision in accordance with subsection 2 of section 57-40.6-02 must be remitted to the state treasurer for deposit in the statewide interoperable radio network fund.

SECTION 2. AMENDMENT. Subsection 1 of section 37-17.3-02.2 of the North Dakota Century Code is amended and reenacted as follows:

1. The statewide interoperability executive committee consists of:

   a. The director of state radio or a designee;

b. The director of the division of homeland security or a designee;

c. The superintendent of the highway patrol or a designee;

d. The adjutant general or a designee;

e. The director of the department of transportation or a designee;

f. A representative of the North Dakota sheriff's and deputies association;

g. A representative of the North Dakota emergency managers association;

h. A representative of the North Dakota fire chiefs association;

i. A representative of the North Dakota emergency medical services association;

j. A representative of the North Dakota police chiefs association;

k. A representative of the North Dakota peace officers association;

l. A representative of the North Dakota 911 association; ~~and~~

m. The North Dakota chief information officer or a designee;

n. The North Dakota Indian affairs commission executive director or a designee; and

o. One member of the North Dakota house of representatives and one member of the North Dakota senate appointed by the legislative management.

SECTION 3. AMENDMENT. Subsection 4 of section 54-59-05 of the North Dakota Century Code is amended and reenacted as follows:

4. May purchase, finance the purchase, or lease equipment, software, or implementation services or replace, including by trade or resale, equipment or software as may be necessary to carry out this chapter. ~~An~~With the exception of agreements entered related to the statewide interoperable radio network, an agreement to finance the purchase of software, equipment, or implementation services may not exceed a period of five years. The department shall submit any intended financing proposal for the purchase of software, equipment, or implementation services under this subsection, which is in excess of one million dollars, to the budget section of the legislative management or the legislative assembly before executing a financing agreement. If the budget section or the legislative assembly does not approve the execution of a financing agreement, the department may not proceed with the proposed financing arrangement. ~~The~~With the exception of financing for the statewide interoperable radio network, the department may finance the purchase of software, equipment, or implementation services only to the extent the purchase amount does not exceed seven and one-half percent of the amount appropriated to the department during that biennium."

Page 1, line 22, remove "dedicated to the political subdivision obligation to"

Page 1, line 23, remove "the statewide interoperability radio network and"

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4/7/17
3 of 3

Page 1, line 23, remove "governing joint powers"

Page 1, remove line 24

Page 2, line 1, replace "interoperability radio network" with "state treasurer for deposit in the statewide interoperable radio network fund in accordance with section 1 of this Act for implementing a statewide interoperable radio network"

Page 3, after line 28, insert:

"**SECTION 6. STATEWIDE INTEROPERABLE RADIO NETWORK IMPLEMENTATION - FUTURE EXPENDITURES.** During the 2017-18 interim, the information technology department shall begin implementation of a statewide interoperable radio network based on findings in the North Dakota statewide interoperable network feasibility study and its recommendations as adopted by the statewide interoperability executive committee. Current and future appropriations and local government contributions for improvement or expansion of state or local public safety land mobile radio systems must be expended in a manner consistent with the recommendations of the statewide interoperability executive committee and only for solutions that are determined by the committee to be interoperable and functional with the statewide system.

SECTION 7. LOAN AUTHORIZATION - APPROPRIATION - STATEWIDE INTEROPERABLE RADIO NETWORK - BUDGET SECTION REPORTS. The information technology department may obtain a loan, subject to budget section approval, from the Bank of North Dakota in an amount not to exceed $15,000,000, the sum of which is appropriated to the information technology department, for the purpose of defraying the expenses of the statewide interoperable radio network for the biennium beginning July 1, 2017, and ending June 30, 2019. The term of the loan may not exceed six years. The loan authorized in this section must be repaid from funds available in the statewide interoperable radio network fund. During the 2017-18 interim, the information technology department shall provide status reports to the budget section regarding the implementation and progress of the statewide interoperable radio network.

SECTION 8. LEGISLATIVE INTENT - RADIO FREQUENCIES. By September 30, 2018, all North Dakota entities operating a public-safety answering point shall relinquish legal rights to any radio frequency required for the statewide interoperable radio network trunk system, allowing these frequencies to be utilized by the state of North Dakota for the use of this network.

SECTION 9. LEGISLATIVE INTENT - STATEWIDE INTEROPERABLE RADIO NETWORK CONSOLIDATION. It is the intent of the sixty-fifth legislative assembly that during the 2017-18 interim, the information technology department and statewide interoperability executive committee make efforts to consolidate certain functions within the statewide interoperable radio network.

SECTION 10. EXPIRATION DATE. This Act is effective through July 31, 2023, and after that date is ineffective."

Renumber accordingly

Date: 4-3-17

Roll Call Vote #: 1

2017 SENATE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. 1178

Senate Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☐ Do Pass ☒ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Unruh Seconded By Laffen

Senators	Yes	No	Senators	Yes	No
Chairman Dwight Cook	X		Senator Jim Dotzenrod		
Vice Chair Brad Bekkedahl		X			
Senator Lonnie J. Laffen	X				
Senator Jessica Unruh	X				
Senator Scott Meyer		X			

Total (Yes) 3 No 2

Absent 1 - Sen. Dotzenrod

Floor Assignment Laffen

If the vote is on an amendment, briefly indicate intent:

Date: 4/7/2017

Roll Call Vote #: __1__

2017 SENATE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. ____1178_____

Senate Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: 17.0592.03000

Recommendation: ☐ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☒ Reconsider ☐ _____

Motion Made By Senator Bekkedahl Seconded By Senator Unruh

Senators	Yes	No	Senators	Yes	No
Chairman Dwight Cook	X		Senator Jim Dotzenrod	X	
Vice Chair Brad Bekkedahl	X				
Senator Lonnie J. Laffen	Absent				
Senator Jessica Unruh	X				
Senator Scott Meyer	X				

Total (Yes) 5 No 0

Absent 1

motion passed

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 4/7/2017

Roll Call Vote #: __2__

2017 SENATE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. ____1178_____

Senate Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: 17.0592.03003

Recommendation: ☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Senator Bekkedahl Seconded By Senator Meyer

Senators	Yes	No	Senators	Yes	No
Chairman Dwight Cook	X		Senator Jim Dotzenrod	X	
Vice Chair Brad Bekkedahl	X				
Senator Lonnie J. Laffen	Absent				
Senator Jessica Unruh	X				
Senator Scott Meyer	X				

Total (Yes) 5 No 0

Absent 1

motion passed

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 4/7/2017

Roll Call Vote #: __3__

2017 SENATE STANDING COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. ____1178_____

Senate Finance and Taxation Committee

☐ Subcommittee

Amendment LC# or Description: 17.0592.03003 Title: 04000

Recommendation: ☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Senator Bekkedahl Seconded By Senator Dotzenrod

Senators	Yes	No	Senators	Yes	No
Chairman Dwight Cook		X	Senator Jim Dotzenrod	X	
Vice Chair Brad Bekkedahl	X				
Senator Lonnie J. Laffen	Absent				
Senator Jessica Unruh		X			
Senator Scott Meyer	X				

Total (Yes) 3 No 2

Absent 1

Floor Assignment Senator Bekkedahl

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1178, as engrossed: Finance and Taxation Committee (Sen. Cook, Chairman) recommends **DO NOT PASS** (3 YEAS, 2 NAYS, 1 ABSENT AND NOT VOTING). Engrossed HB 1178 was placed on the Fourteenth order on the calendar.

REPORT OF STANDING COMMITTEE

HB 1178, as engrossed: Finance and Taxation Committee (Sen. Cook, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (3 YEAS, 2 NAYS, 1 ABSENT AND NOT VOTING). Engrossed HB 1178 was placed on the Sixth order on the calendar.

Page 1, line 1, after "to" insert "create and enact a new section to chapter 37-17.3 of the North Dakota Century Code, relating to the creation of a statewide interoperable radio network fund, to"

Page 1, line 1, after "reenact" insert "subsection 1 of section 37-17.3-02.2, subsection 4 of section 54-59-05,"

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h. A representative of the North Dakota fire chiefs association;

i. A representative of the North Dakota emergency medical services association;

j. A representative of the North Dakota police chiefs association;

k. A representative of the North Dakota peace officers association;

l. A representative of the North Dakota 911 association; ~~and~~

m. The North Dakota chief information officer or a designee;

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Page 1, line 23, remove "the statewide interoperability radio network and"

Page 1, line 23, remove "governing joint powers"

Page 1, remove line 24

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SECTION 10. EXPIRATION DATE. This Act is effective through July 31, 2023, and after that date is ineffective."

Renumber accordingly

2017 CONFERENCE COMMITTEE

HB 1178

2017 HOUSE STANDING COMMITTEE MINUTES

Finance and Taxation Committee
Fort Totten Room, State Capitol

HB 1178
4/14/2017
30140

☐ Subcommittee
☒ Conference Committee

Committee Clerk Signature Mary Brucker

Explanation or reason for introduction of bill/resolution:

A bill relating to the assessed communications service fee and the prepaid wireless emergency 911 fee.

Minutes: No attachments

Chairman Olson: The Senate has some changes to 1178. Would someone from the Senate explain the changes for us please?

Senator Bekkedahl: The Senate added provisions in the bill that would provide funding and implementation of a statewide trunk system for the statewide interoperable radio network. The original intent of the bill as it came from the House was a $.50 fee for local infrastructure procurement to the statewide interoperable radio network. There was another bill in the Senate that was defeated in the House that would have provided funding for the state network which has to be in place before we can get the local obligations to comply to something that isn't there. After the loss of that bill the Senate changed this bill so the $.50 fee, for a specified period of time that has an expiration date of July 31, 2023, would go into a state fund which is listed in section 1 on page 1. The counties would still be given the funding for the additional $.50 and it would have to be remitted back to this fund. Once it's in that fund section 2 talks about how if there are any other grants they can come into the fund as well to help supplement. The next page talks about how the revenue must be remitted to the state treasurer for deposit which then takes care of the fund in section 1. The change in section 2 was the additional membership categories to the statewide interoperable executive committee which includes one from the Indian Affairs Commission executive director or designee, one member of the North Dakota House of Representatives, and one member of the North Dakota Senate appointed by Legislative Management. This is an attempt to get some better information from what the committee is doing and also the input from the legislature. The change in section 3 is the exception of agreement entered related to the network. Current statutory language doesn't approve execution of certain financing agreements so this is exception language to what we're doing with the statewide interoperable radio network. On page 3 line 28, section 4, is the fee section and that is mandating the fee to come back into the fund as we talked about in section 1 and removes language that talked about the local authorities spending their obligation to the statewide network for their local equipment purchases. The rest of section 4 stays as it is. We also

have the implementation technology program on page 5 which shall begin implementation of a statewide interoperable radio network based on the findings of the committee. The important language on page 6 says "Current and future appropriations and local government contributions for improvement or expansion of state or local public safety land mobile radio systems must be expended in a manner consistent with the recommendations of the statewide interoperability executive committee and only for solutions that are determined by the committee to be interoperable and functional with the statewide system." Section 7 is the loan authorization. If this passes in its current form it doesn't generate enough fee revenue in any single one year to pay for the equipment needs to set up the trunk system as established by the committee. They are going to get the Bank of North Dakota not to exceed $15 million of loan then use the input dollars from the statewide fund to pay that off in a payment pattern based on what's coming into that fund. The term limit may not exceed six years which is also the term of the expiration date of the fee. This is to get the money up front to do the system and get it in place. Section 8 is radio frequencies. It's not intended to take away any frequencies that they are currently using but some of these are locked up frequencies in case they need them. It's telling them they need to get rid of those frequencies to us and let us hold them because we'll need them for the interoperable system. The consolidation is the intent of the legislature that during the interim ITD and the executive committee make efforts to consolidate certain functions within the statewide interoperable radio network. That also points to look at the number of PSAPs and how they can be consolidated if necessary to make this work. Lastly you have the expiration date. The intent of the amendment is to provide a funding source that was originally in 1178 to the state through the counties to the state to fund the trunk system established. Without it we are going to continue to see local needs in their public service entities to buy new equipment that may not or could not be compatible with a trunk system until we have defined by designed and purchase this statewide trunk system.

Senator Cook: I voted against this bill for two reasons; the increase of the 911 fee and because it seemed like the solution to this problem was not all on the table in front of us. We had a 911 fee increase bill then there was intent language that was going on the ITD appropriations bill in the House. I worked with Representative Nathe and Representative Koppelman to get them all into one. That is a major improvement. There was also intent language in the appropriation amendment and some of that has been turned into code which is definitely an improvement. One of the reasons I voted against this bill is now gone. It's a much better bill now other than the funding mechanism. I want to thank Representative Nathe and Representative Koppelman for working with us.

Representative Headland: I voted against it as well for essentially the same reason. Is there anything in this bill that would indicate what type of local investment will be provided locally? Traditionally I believe general fund dollars have been used to fund what is in place today. Moving forward is there going to be local money associated with the costs of providing this interoperability network or is it going to be completely funded by the state because it's a statewide network?

Senator Laffen: In our discussions they thought the state share of this was between $60-90 million and the rest of the $170-220 million was all local share. I can't remember where I heard that. That's the biggest reasons we have all struggled with this all along. In all of the testimony I think everybody was convinced that we have a problem out there and our radio

system is at the end of its life. We need a new system that everyone can tie into. We were killing bills left and right for every funding piece we had because nobody could explain what we were buying and who was paying for it. In the end most of us finally came down to the fact that we need to find a small piece of funding somewhere to get the trunk system in place and at least designed so that as locals start buying stuff they know what to tie into.

Representative Nathe: We can take a look at the local share as we go forward. I think this is a very good bill. We finally have all the players on the same page for the first time in a long time. I think it's imperative that we pass this. This is a great start to the system and I look forward to seeing how it works out. **MADE A MOTION THAT THE HOUSE ACCEDE TO THE SENATE AMENDMENTS.**

Senator Cook: SECONDED

Chairman Olson: Is there any discussion?

ROLL CALL VOTE: 6 YES 0 NO 0 NO

Meeting adjourned.

Date: 4-14-17
Roll Call Vote #: 1

2017 HOUSE CONFERENCE COMMITTEE
ROLL CALL VOTES

BILL/RESOLUTION NO. HB 1178 as (re) engrossed

House Finance and Taxation Committee

Action Taken
- ☒ **HOUSE accede to Senate Amendments**
- ☐ **HOUSE accede to Senate Amendments and further amend**
- ☐ **SENATE recede from Senate amendments**
- ☐ **SENATE recede from Senate amendments and amend as follows**

- ☐ **Unable to agree**, recommends that the committee be discharged and a new committee be appointed

Motion Made by: Rep. Nathe Seconded by: Sen. Cook

Representatives	4/14			Yes	No	Senators	4/14			Yes	No
Chairman Olson	✓			✓		Sen Bekkedahl	✓			✓	
Rep Nathe	✓			✓		Sen Laffen	✓			✓	
Rep Headland	✓			✓		Sen Cook	✓			✓	
Total Rep. Vote						Total Senate Vote					

Vote Count Yes: 6 No: 0 Absent: 0

House Carrier _____ Senate Carrier _____

LC Number _____ . _____ of amendment

LC Number _____ . _____ of engrossment

Emergency clause added or deleted

Statement of purpose of amendment

REPORT OF CONFERENCE COMMITTEE

HB 1178, as engrossed: Your conference committee (Sens. Bekkedahl, Laffen, Cook and Reps. Olson, Nathe, Headland) recommends that the **HOUSE ACCEDE** to the Senate amendments as printed on HJ pages 1622-1625 and place HB 1178 on the Seventh order.

Engrossed HB 1178 was placed on the Seventh order of business on the calendar.

2017 TESTIMONY

HB 1178

CenCom

Mandan Bismarck Burleigh

#1 p.1
1-17-17
HB 1178

January 17, 2017
House Finance and Taxation Committee
Honorable Chairman Craig Headland

HB 1178
Support

Chairman Headland and members of the House Finance and Taxation Committee, for the record my name is Mike Dannenfelzer, Director of the Central Dakota Communications Center (CenCom) here in Bismarck. I am here in support of this bill.

The general intent of this bill is to provide additional local funding necessary to begin implementation of a new statewide interoperable radio network that has been the subject of extensive study over the last four years. The bill simply says that if a governing body of a county or city imposes a fee on assessed communications services, that fee will be $2.00 and $.50 of that fee must be used as local share in the statewide interoperable radio network.

The 9-1-1 fee was originally established in the late 1980s to implement emergency communications systems (ex. 9-1-1 systems, radio systems) and all counties currently collect 9-1-1 fees to help support these systems. The bill proposes to eliminate the formerly required vote and standardize the fee at $2.00. Currently, service providers have to contact each county to determine what the fee is in that county. This change would allow a notification to service providers of the amount of the fee and eliminate their need to contact each county, saving the providers time and money.

Approximately 1/2 of counties in the State collect $1.50 per assessed communications service while the others remain at $1.00. Several more of the counties currently collecting $1.00 are considering an increase in their assessment to $1.50. Understanding that in most cases the $1.50 is necessary for maintenance of local systems and operation, this bill would move the fee

to $2.00 so that funds that are used locally would remain, and each county would remit the new $.50 to be used for the statewide interoperable radio network. One aspect of the proposed funding model for the statewide interoperable radio network is a local share that is based on population. Generally, the 9-1-1 fee based on a subscriber model (devices that access 9-1-1) fits this nicely as the more populous areas collect higher fees and as such would be paying a higher share of the local share in the funding model.

Several sessions ago, the legislature removed the requirement to have the voters reauthorize the fee and only required a vote if there was a proposal to increase the fee or if there was a desire to repeal the fee. There has never been an instance of a repeal effort and the reauthorization of the fee had been repeatedly approved in counties. Based on the history of citizen support and an interest in making things a little easier for each county and the service providers, standardizing the fee at $2.00 would level the field and generate critical funding to begin implementing a new statewide interoperable radio network, consistent with intent of the sixty-forth legislative body.

Under Section 2, there is also a comparable increase to the prepaid wireless fee of one-half percent. This amount is a relative equal amount based on the original establishment of the two percent fee at the point of sale.

I would also like to note that the $.50 remittance by the counties will be directed to the governing joint powers entity already established to be used specific to the statewide interoperable radio network. This will insure that we are able to centrally manage the local share as we've been successfully doing with the Next Generation 9-1-1 project and work in cooperation with efforts of the statewide interoperability executive committee.

Thank you and I will answer any questions you may have.

Mike Dannenfelzer
Communications Director
9-1-1 STEPS Chairman
Dakota NENA President

The Central Dakota Communications Center (CenCom) is a consolidated public safety answering point providing Enhanced 9-1-1 and public safety communications services for the City of Bismarck, City of Mandan, Burleigh County and the southeast portion of McLean County, including the City of Lincoln.

Jan. 13

Answering the Call Past, Present and Next Generation ND911 Association

#2
1-17-17
HB 1178

The ND 911 Association is made up of individuals representing 911 call takers, PSAP managers, emergency dispatchers and others, who support mission critical communications for Law, Fire, EMS and at times, Public Utilities and Works. We represent every community in the State of ND.

The previous 4 years' worth of meetings and studies, to identify and fix issues with public safety communications has identified a solution. That solution is SIRN 20/20. The ND 911 Association and its members have voted to support the findings of the SIRN 20/20 study and the proposed solution.

House Bill 1178 has our support to assist with the local share of the SIRN 20/20 solution. Our members fully support this House Bill and ask for your support of us, by its passage.

Sincerely,

Starr Klemetsrud

Starr Klemetsrud

President, ND 911 Association

#3 p. 1
1-17-17
HB 1178

January 17, 2017
House Finance and Taxation Committee
Honorable Chairman Craig Headland

HB 1178
Support

Chairman Headland and members of the House and Finance Taxation Committee, for the record my name is Becky Ault, Director of the Grand Forks Public Safety Answering Point, and Co-Chair of the ND 911 Association Legislative Committee. I urge support of HB1178, which provides a consistent Fee Revenue across the state for 911 operations, and a dedication of .$.50 per line dedicated toward implementing a much needed **statewide interoperable radio network.**

I have been the director in Grand Forks for six years. Prior to that, I worked as a regional coordinator in northeast ND in the Homeland Security Division at the Department of Emergency Services for 2 years (this area encompassed 14 counties and 2 Indian Reservations), and prior to that I was the Pembina County Emergency Manager and 911 Director for 14 years. I give you that background to show that over the years, I have worked with both large paid departments, as well as small rural departments, and all disciplines, encompassing law enforcement, fire personnel, emergency medical services, public works, and schools, to name a few. I can tell you that with all the disasters and emergencies I have worked, almost all of them, when we complete an after action analogy of what went well and what to improve – listed communications as an area that needed improvement. Granted, sometimes this was due to operator error. However, many times that is not the case. Larger communities, many times due to access to grants or additional resources, have upgraded their radio systems so that many of the operational gaps have been greatly reduced – we have come a long way towards addressing those areas, but still have problems with in-building coverage for example. In the more rural areas, we have gaps in coverage. In fact, in Grand Forks County, we have a small community that straddles Traill and Grand Forks County called Reynolds. The Reynolds Fire Department struggles with good coverage for both paging and communications because they are on the fringe of both counties, and tower location for repeaters are also in a fringe location. Frankly we could keep placing towers to close those gaps, but towers are expensive.

Last session, the 64th Legislative Assembly granted dollars for a study defining the best solution to our communication challenges. There have been a number of studies over the last several biennium's. The most recent study, overseen by the Statewide Interoperable Executive

Committee (SIEC), defined a solution we call SIRN (Statewide Interoperable Radio Network). The solution identified in the Televate study will improve both our larger community in-building coverage challenges, as well as our small community rural gaps across the state, by utilizing existing resources at a local and state level, and tying them together. Further we will close gaps with additional resources, in a collaborative interoperable investment.

The Grand Forks Public Safety Answering Point supports legislative action to fund and implement a new, statewide integrated public safety land mobile radio system. This bill is a good step towards finding funding for a well-defined problem. The Statewide Interoperable Executive committee, with their cross-discipline representation, is a solid venue to ensure the system is implemented in a manner that will meet public safety needs.

With the significant number of dispatch centers across the state nearing end of life for consoles, and infrastructure out in the field that is nearing end of life needing replacement, now is the time to be on the same platform working collaboratively and effectively utilizing economies of scale – and truly leverage our resources – together. Technology is opening up new worlds in communication that could vastly improve service delivery for our citizens and improve the information flow to our responding entities, both large and small, volunteer and full time.

We all realize that the budget revenue has changed with the change in the price of oil and agricultural commodities. We recognize you have a very tough job to do as we all plan on how we will address challenges due to growth as well as technology changes, and public expectations. We feel that by identifying other revenue streams, that perhaps we can help find answers to this challenge, yet meet the need for improvement to public safety communications. This bill, while it will not meet all of the budgetary needs for a full system upgrade, will certainly help with a portion of those communication upgrade needs as we move forward. We thank you for your service and for your consideration of this challenge and opportunity.

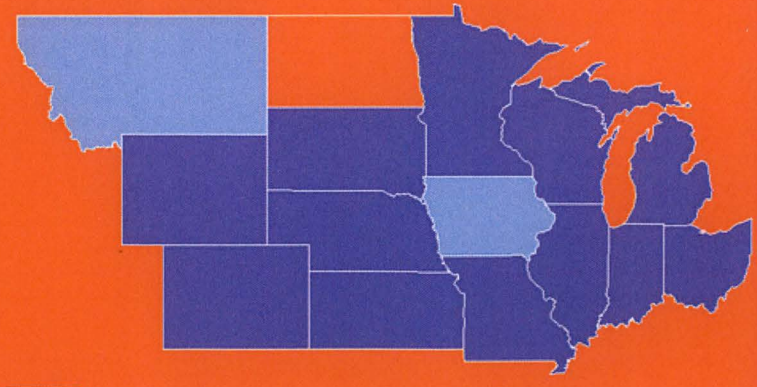
#4
1-17-17
HB 1178

Public Safety

Needs YOUR Help!

North Dakota Is Being Left Behind!

North Dakota is the ONLY state in the upper Midwest that continues to operate EXCLUSIVELY on decades old radio communications. Coupled with mission critical radio systems across the state reaching their end-of-life before the next legislative session, this is our chance to pool independent investments into a statewide system that works as one.



ND 9-1-1 Association Supports Interoperable Communications

NORTH DAKOTA STATEWIDE INTEROPERABLE RADIO NETWORK

A North Dakota Statewide Interoperable Radio Network (SIRN) is the ANSWER!

SIRN 20/20 is a statewide solution for delivering, integrating, supporting mission critical interoperable radios systems, and training for first responders and the public safety community.

"The pipeline protest has proven that our current radio systems cannot provide interoperable communications between emergency response agencies from across the State. Reliable radio communications was even more of a problem with those out of state agencies that came to assist us."
Chad Kaiser, Stutsman County Sheriff

Support HB 1178

#5
1-17-17
HB 1178

January 17, 2017
House Finance and Taxation Committee
HB 1178
Rep. Headland--Chairperson

For the record, I am Blake Crosby, Executive Director of the North Dakota League of Cities, representing the 357 incorporated cities across the state. Approximately 77% of the population of North Dakota lives in those cities.

I am appearing before you in support of HB 1178 which allows cities and counties to assess a fee of fifty cents to support the State Interoperability Radio Network (SIRN) to assist in implementing a statewide system. Currently we have first responder personnel, emergency service workers and law enforcement officers who do not have the ability to communicate with each other using their current radio systems. A situation that could end up costing them, or civilians, their lives. We are very fortunate given the new environment we find ourselves in that no tragedies have yet occurred.

I'm not going to stand here and pretend I understand the technical aspects of integrated console subsystems, PSAPs, trunked VHF, etc. What I do know is that the current vendor of many radios currently in use will quit supporting that system. So if there is no direction and assistance given to all the emergency and law enforcement entities whose daily work depends on radio communication, we will have political subdivisions with no choice but to purchase their own equipment. As cost to them is always a concern we will be back in the same situation where they can't communicate with each other because of platform architecture restrictions.

SIRN is intended to protect the citizens of North Dakota. The fifty cents will assist in the cost-share between the State and political subdivisions.

I urge a DO-PASS on HB 1178.

THANK YOU FOR YOUR TIME AND CONSIDERATION. I will try to answer any questions.

#1 p.1
1-25-17
HB 1178

17.0592.02002
Title.

Prepared by the Legislative Council staff for
Representative B. Koppelman
January 24, 2017

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1178

Page 1, remove lines 5 through 24

Page 2, remove lines 1 through 31

Page 3, replace lines 1 through 5 with:

"**SECTION 1. AMENDMENT.** Section 57-40.6-02 of the North Dakota Century Code is amended and reenacted as follows:

57-40.6-02. Authority of counties or cities to impose fee on assessed communications service - Procedure.

The governing body of a county or city may impose ~~a fee~~ fees on all assessed communications services ~~a fee up to one dollar and fifty cents per month per communication connection~~ in accordance with the following requirements:

1. The governing body shall adopt a resolution that proposes the adoption of the fee permitted under this section. The resolution must specify an effective date for the fee which is no more than two years before the expected implementation date of the emergency services communication system to be funded by the fee. The resolution must include a provision for submitting the proposed fee to the electors of the county or city before the imposition of the fee is effective. The resolution must specify a fee that does not exceed one dollar and fifty cents per month per communication connection and must be applied equally upon all assessed communications services. Prepaid wireless service is not subject to the fee imposed under this section.

2. A political subdivision shall add a fee of fifty cents to the fee imposed on assessed communications services established under subsection 1. The additional fifty cents per communication connection must be dedicated to the political subdivision obligation to the statewide interoperability radio network and remitted to the governing joint powers entity established under chapter 54-40.3 for the purpose of implementing a statewide interoperability radio network. The funds collected under this subsection must be expended in a manner consistent with the recommendations of the statewide interoperability executive committee.

3. The question of the adoption of the fee must be submitted on a petition on which the petition title of the proposition includes the maximum monthly rate of the proposed fee authorized under subsection 1. The question of the adoption of the fee may be submitted to electors at a general, primary, or special election or at a school district election if the boundaries of the school district are coterminous with the boundaries of the governing body adopting the resolution proposing the adoption of the fee. The fee is not effective unless it is approved by a majority of the electors voting on the proposition. The ballot must be worded so that a "yes" vote authorizes imposition of the fee.

~~3.~~4. Once established by this section, the maximum fee may be increased, decreased, or eliminated by a majority vote of the electors. The question may be placed on the ballot of any general, primary, or special election by a resolution of the governing body, or by a petition signed by ten percent or more of the total number of qualified electors of the political subdivision voting for governor at the most recent gubernatorial election and submitted to the governing body. By action of the governing body, the fee amount collected may be adjusted, subject to the maximum approved by the voters, to meet the costs allowed by this chapter.

~~4.~~5. In any geographic area, only one political subdivision may impose the fee and imposition must be based on the subscriber service address.

~~5.~~6. In the interest of public safety, where the subscriber's telephone exchange access service boundary and the boundary of the political subdivision imposing the fee do not coincide, and where all of the political subdivisions within the subscriber's telephone exchange access service boundary have not complied with subsection 1, and where a majority of the subscribers within the subscriber's telephone exchange access service boundary have voted for the fee, a telephone exchange access service subscriber whose subscriber service address is outside the political subdivision may receive 911 services by signing a contract agreement with the political subdivision providing the emergency services communication system. The telephone exchange access service provider may collect an additional fee, equal in amount to the basic fee on those subscribers within the exchange boundary. The additional fee amounts collected must be remitted as provided in this chapter.

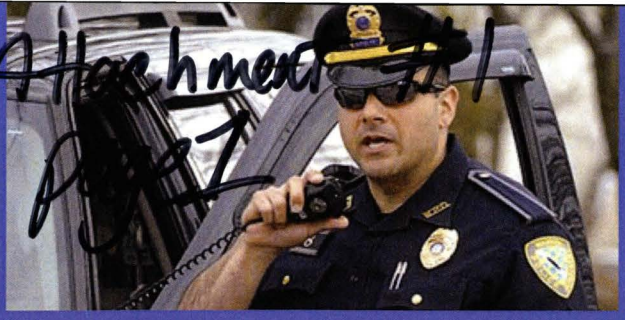
~~6.~~7. A fee imposed under this section before August 1, 2007, on telephone exchange access service is extended to all assessed communications services and will remain in effect until changed pursuant to subsection ~~3~~4."

Renumber accordingly

3/14/2017 HB 1178 Attachment #1

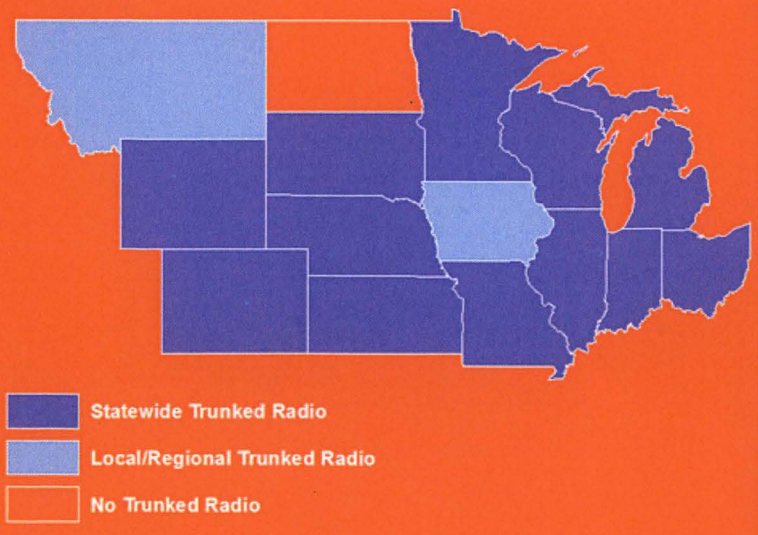
Public Safety

Needs YOUR Help!



North Dakota Is Being Left Behind!

North Dakota is the ONLY state in the upper Midwest that continues to operate EXCLUSIVELY on decades old radio communications. Coupled with mission critical radio systems across the state reaching their end-of-life before the next legislative session, this is our chance to pool independent investments into a statewide system that works as one.



ND 9-1-1 Association Supports Interoperable Communications

SIEC.ND.GOV/SIRN-2020

NORTH DAKOTA STATEWIDE INTEROPERABLE RADIO NETWORK

A North Dakota Statewide Interoperable Radio Network (SIRN) is the ANSWER!

SIRN 20/20 is a statewide solution for delivering, integrating, supporting mission critical interoperable radios systems, and training for first responders and the public safety community.

"The pipeline protest has proven that our current radio systems cannot provide interoperable communications between emergency response agencies from across the State. Reliable radio communications was even more of a problem with those out of state agencies that came to assist us."
Chad Kaiser, Stutsman County Sheriff

Support HB 1178 & SB 2204

3/14/2017 HB1178 Attachment #2 pg 1

CenCom

Mandan Bismarck Burleigh

March 14, 2017
Senate Finance and Taxation Committee
Honorable Chairman Dwight Cook

HB 1178
Support

Chairman Cook and members of the Senate Finance and Taxation Committee, for the record my name is Mike Dannenfelzer, Director of the Central Dakota Communications Center (CenCom) here in Bismarck. I also sit on the statewide interoperable executive committee (SIEC) as the representative of the ND 911 Association and am Chair of the 9-1-1 Strategic Technology Planning Subcommittee (STEPS). I am here in support of this bill.

The general intent of this bill is to provide additional local funding necessary to begin implementation of a new statewide interoperable radio network (SIRN 20/20) that has been the subject of extensive study over the last four years. Section 1 (2) of the bill simply says that if a governing body of a county or city imposes a fee on assessed communications services, that the political subdivision shall add a fee of $.50 that must be dedicated to the local obligation to the statewide interoperability radio network. That $.50 would be remitted to an already established joint powers entity (STEPS) to be expended in a manner consistent with recommendations of the statewide interoperability executive committee (SIEC).

During the 64th Legislative Assembly, the ND Information Technology Department was provided funding for the study conducted by Televate and was tasked, under the guidance of the SIEC, with determining the feasibility and desirability of implementing a statewide radio interoperability network. Over the last two biennia, Televate performed an in-depth analysis of the current state of public safety land mobile radio communications and developed recommendations to present to the SIEC that would be the basis for how we as a State should

move forward. Those recommendations included a proven technology direction, a robust governance organization and conceptual funding models. The SIEC has received the study results and has begun to build out the governance organization.

Through the work of the SIEC and ITD, it has been found both feasible and desirable to move forward with implementation of the SIRN 20/20 plan. This bill serves as a crucial funding mechanism for the local obligation under the SIRN 20/20 plan.

In the final report, the local funding portion was recommended to be based on population. In essence, larger local jurisdictions would be paying a larger portion of the local share and the smaller would be paying less. The 9-1-1 fee model serves this purpose very well. By way of the number of subscribers in any jurisdiction, fees are generally representative of the population at large and counties like Cass or Burleigh collect higher fees and would be remitting a higher number of $.50 payments in support of the SIRN 20/20 local obligation. Because it is an already established mechanism, the 9-1-1 fee was favored over other models for the local share.

Additionally, approximately 1/2 of counties in the State currently collect $1.50 per assessed communications service while the others remain at $1.00. Several of the counties currently collecting $1.00 are considering an increase in their assessment to $1.50 for local projects and increased operational expenses. Understanding that in most cases the $1.50 is necessary for maintenance of local systems and operation, this bill would add the $.50 SIRN 20/20 fee on top of the local collection to ensure participation, and leave the up-to $1.50 for local operations as approved by voters within a jurisdiction.

Under Section 2 (1), there is also a comparable increase to the prepaid wireless fee of one-half percent. This amount is a relative equal amount based on the original establishment of the two percent fee at the point of sale.

As you have probably already heard and will likely hear many times, the timing of this project is critical. A large percentage of equipment used in communications centers, at tower sites, and in responder vehicles will reach end-of-life over the next couple of years. It is a significant risk for public safety agencies to operate on equipment that is no longer supported. We have before us an opportunity where local government agencies have come together to work

with the State in deploying a new system of which we will all benefit, resulting in greater interoperability, safety and security for our first responders and citizens of this State.

Understanding the budgetary situation coming into this Session, individuals and organizations have stepped up to help support two pieces of legislation that the SIEC and the public safety community believe are appropriate and will help us to begin building SIRN 20/20. The SIEC passed a resolution in full support of HB 1178 and SB 2204 (currently in the House) as funding mechanisms to move SIRN 20/20 forward.

For the past three legislative sessions there has been a growing chorus speaking to these very issues and now we're in the fourth quarter, and we are trailing. Now, the public safety community needs your leadership, guts and determination to get back in the lead.

I would urge your support of this bill and will answer any questions you may have.

Mike Dannenfelzer
Communications Director
9-1-1 STEPS Chairman
SIEC Member
Dakota NENA President

The Central Dakota Communications Center (CenCom) is a consolidated public safety communications center providing 9-1-1 and public safety communications services for the City of Bismarck, City of Mandan, Burleigh County and the southeast portion of McLean County, including the City of Lincoln.

HB 1178 TESTIMONY
SENATE FINANCE AND TAXATION COMMITEE
BY: DUANE SCHELL, DIRECTOR OF NETWORK SERVICES DIVISION
INFORMATION TECHNOLOGY DEPARTMENT (ITD)
MARCH 14, 2017

Mr. Chairman, members of the committee. My name is Duane Schell, I am the Director of the Network Services Division with the Information Technology Department (ITD). In addition, I represent the CIO on the Statewide Interoperability Executive Committee (SIEC) and am currently serving as the chair of that committee. The purpose of my testimony is to provide you with a high level overview of the statewide integrated radio network (SIRN) project since this bill as written will benefit that effort.

The SIEC is a 13 member committee defined in NDCC (37-17.3-02.2) charged with oversight of interoperable communications for the public safety community across the State. The membership includes six state agencies that have a role in public safety radio communications as well seven members from local jurisdictions representing the various associations of all the disciplines within public safety including law enforcement, fire, and emergency response.

The SIEC has been focused on the SIRN project for over 3 years. During the 64th legislative assembly, ITD was appropriated funds to work in partnership with the SIEC to thoroughly study the desirability and feasibility of a statewide integrated radio network solution. The results of that study are complete and the full report with supporting documentation is published on the SIEC website (http://siec.nd.gov/sirn).

This effort originated in a mounting voice from the public safety community that the current land mobile radio networks limit the ability for first responders to consistently work together in providing timely response for day to day, mutual aid, and task force operations due to technology and coverage limitations. As we look at the current state of land mobile radio communications in ND, we see a solution that is based on technology, designs, and principles that date back to the 1970s. We all know that technology, business needs, and user expectations evolve and while the existing solution has served the state well for many years, the inherent limitations of the solution are no longer acceptable to the community depending

upon it. As we look at the challenges of the existing solution, they can be summarized into three broad categories.

The first challenge is in regards to interoperability. A key success factor for public safety officials is interoperable communications that allows them to communicate with each other, across the various disciplines within public safety, and across jurisdictional boundaries. The current solution which is comprised of dozens of individual networks independently owned and operated by the various jurisdictions across the state, inherently has limitations that precludes seamless, interoperable, statewide communication. One mechanism, presently in place to aid in interoperability is a feature referred to as mutual aid channels provided by State Radio. These are shared radio channels which are available to all of public safety across the state with the purpose of improving interoperability. For those of you that have heard of or remember the party line concept within the legacy phone systems, this solution is very similar. As such, when multiple events are occurring across the state at the same time you have several conversations taking place concurrently with public safety officials talking over each other, competing for air time, while attempting to respond appropriately to an event. This is just one of many challenges that exist in regards to interoperability.

The second challenge is the age of the current infrastructure. Presently, across the state, the study revealed that over 40% of the entire infrastructure will be at its end of life date between 2018 and 2020. End of life means that the equipment will no longer be supported by the various vendors and if not addressed will put the continued usage and reliability of the system at risk.

The last challenge is coverage. Public safety is expected to respond to events anywhere across the state and despite a long-term effort on behalf of the entire community, coverage continues to fall short of expectations.

After extensive effort gathering information, obtaining feedback from the community, and evaluating numerous solutions and approaches, Televate (the vendor with expertise in public safety communications acquired to conduct the study), concluded that a statewide interoperable radio network was both desirable as well as feasible in ND. As such, it is the desire of the SIEC with strong and widespread support from the public safety community to pursue this strategy.

By choosing a single, integrated, statewide solution, using modern standards based technology, the current interoperability challenges can be minimized and potentially eliminated. The limitations from dozens of independent systems are removed and seamless statewide roaming is achieved. The need for public safety officials to talk over one another and compete for air time is eliminated and is replaced by individualized talk groups designed to meet the needs of every jurisdiction, discipline, team, or event. With this solution the coverage challenges can also be improved through more efficient use of existing tower assets and efficient deployment of valuable frequencies. The coverage goals of the project would be to provide 95% mobile coverage and 85% portable coverage statewide. Finally, with a direction and strategy established, the resources available to the community can be directed in a manner to begin the work of replacing the aging infrastructure with a solution that can be supported by the manufacturer and vendor community.

My final comments will be about the fiscal realities of public safety radio networks which are not insignificant. As part of the study, the committee evaluated the cost of several choices, including the cost to continue with the current approach. If we maintain the current approach, and only attempt to solve the aging infrastructure, ignoring the issues of interoperability and coverage, the estimated capital expenditure totals $185 million dollars. The capital expenditure of pursuing a single integrated approach that improves interoperability and coverage as well as replace aging infrastructure is slightly lower at $172 million dollars for capital expenditures. Both solutions would have comparable ongoing operational costs. The team has explored multiple implementation strategies. The original report recommends a 5-year implementation which would result in a combined capital and operating estimated budget of $220 million dollars. We also have plans for a 7-year and 9-year implementation to provide options based on resource availability.

That concludes my prepared remarks. I would be happy to answer any questions.

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3/14/2017 HB 1178 Attachment #4 pg 1

March 14, 2017
Senate Finance and Taxation Committee
Honorable Chairman Dwight Cook

HB 1178
Support

Chairman Cook and members of the Senate Finance Taxation Committee, for the record my name is Becky Ault, Director of the Grand Forks Public Safety Answering Point, and Co-Chair of the ND 911 Association Legislative Committee. I urge support of HB1178, which provides an increase of .50 per device to the 911 fee collected at the local level to be dedicated toward implementing a much needed **statewide interoperable radio network.**

I have been the director in Grand Forks for six years. Prior to that, I worked as a regional coordinator in northeast ND in the Homeland Security Division at the Department of Emergency Services for 2 years (this area encompassed 14 counties and 2 Indian Reservations), and prior to that I was the Pembina County Emergency Manager and 911 Director for 14 years. I give you that background to show that over the years, I have worked with both large paid departments, as well as small rural departments, and all disciplines, encompassing law enforcement, fire personnel, emergency medical services, public works, and schools, to name a few. I can tell you that with all the disasters and emergencies I have worked, almost all of them, when we complete an after action analogy of what went well and what to improve – listed communications as an area that needed improvement. Granted, sometimes this was due to operator error. However, many times that is not the case. Larger communities, many times due to access to grants or additional resources, have upgraded their radio systems so that many of the operational gaps have been greatly reduced – we have come a long way towards addressing those areas, but still have problems with in-building coverage for example. In the more rural areas, we have gaps in coverage. In fact, in Grand Forks County, we have a small community that straddles Traill and Grand Forks County called Reynolds. The Reynolds Fire Department struggles with good coverage for both paging and communications because they are on the fringe of both counties, and tower location for repeaters are also in a fringe location. Another example of a rural fire department that experiences challenges with coverage is the Inkster Fire Department located in the southwest corner of Grand Forks County. Frankly we could keep placing towers to close those gaps, but towers are expensive.

Last session, the 64th Legislative Assembly granted dollars for a study defining the best solution to our communication challenges. There have been a number of studies over the last

several biennium's. The most recent study, overseen by the Statewide Interoperable Executive Committee (SIEC), defined a solution we call SIRN (Statewide Interoperable Radio Network). The solution identified in the Televate study will improve both our larger community in-building coverage challenges, as well as our small community rural gaps across the state, by utilizing existing resources at a local and state level, and tying them together. Further we will close gaps with additional resources, in a collaborative interoperable investment.

The Grand Forks Public Safety Answering Point supports legislative action to fund and implement a new, statewide integrated public safety land mobile radio system. This bill is a good step towards finding funding for a well-defined problem. The Statewide Interoperable Executive committee, with their cross-discipline representation, is a solid venue to ensure the system is implemented in a manner that will meet public safety needs.

With the significant number of dispatch centers across the state nearing end of life for consoles, and infrastructure out in the field that is nearing end of life needing replacement, now is the time to be on the same platform working collaboratively and effectively utilizing economies of scale – and truly leverage our resources – together. Technology is opening up new worlds in communication that could vastly improve service delivery for our citizens and improve the information flow to our responding entities, both large and small, volunteer and full time.

We all realize that the budget revenue has changed with the change in the price of oil and agricultural commodities. We recognize you have a very tough job to do as we all plan on how we will address challenges due to growth as well as technology changes, and public expectations. We feel that by identifying other revenue streams, that perhaps we can help find answers to this challenge, yet meet the need for improvement to public safety communications. This bill, while it will not meet all of the budgetary needs for a full system upgrade, will certainly help with a portion of those communication upgrade needs as we move forward. We thank you for your service and for your consideration of this challenge and opportunity.

3/14/2017

Public Safety Answering Points

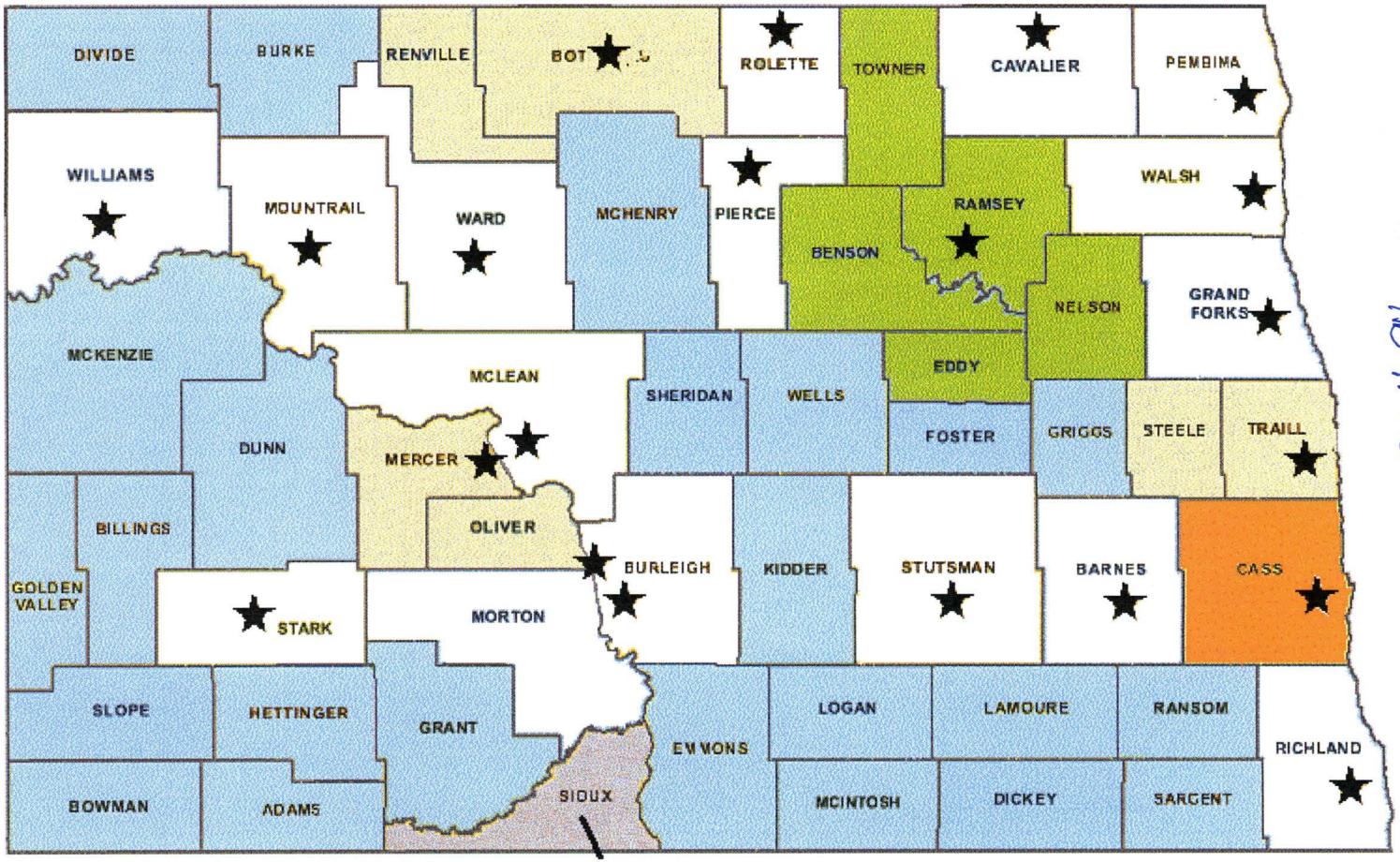
State Radio Counties

5-County PSAP

2-County PSAPs

2-State PSAP

Single County PSAPs



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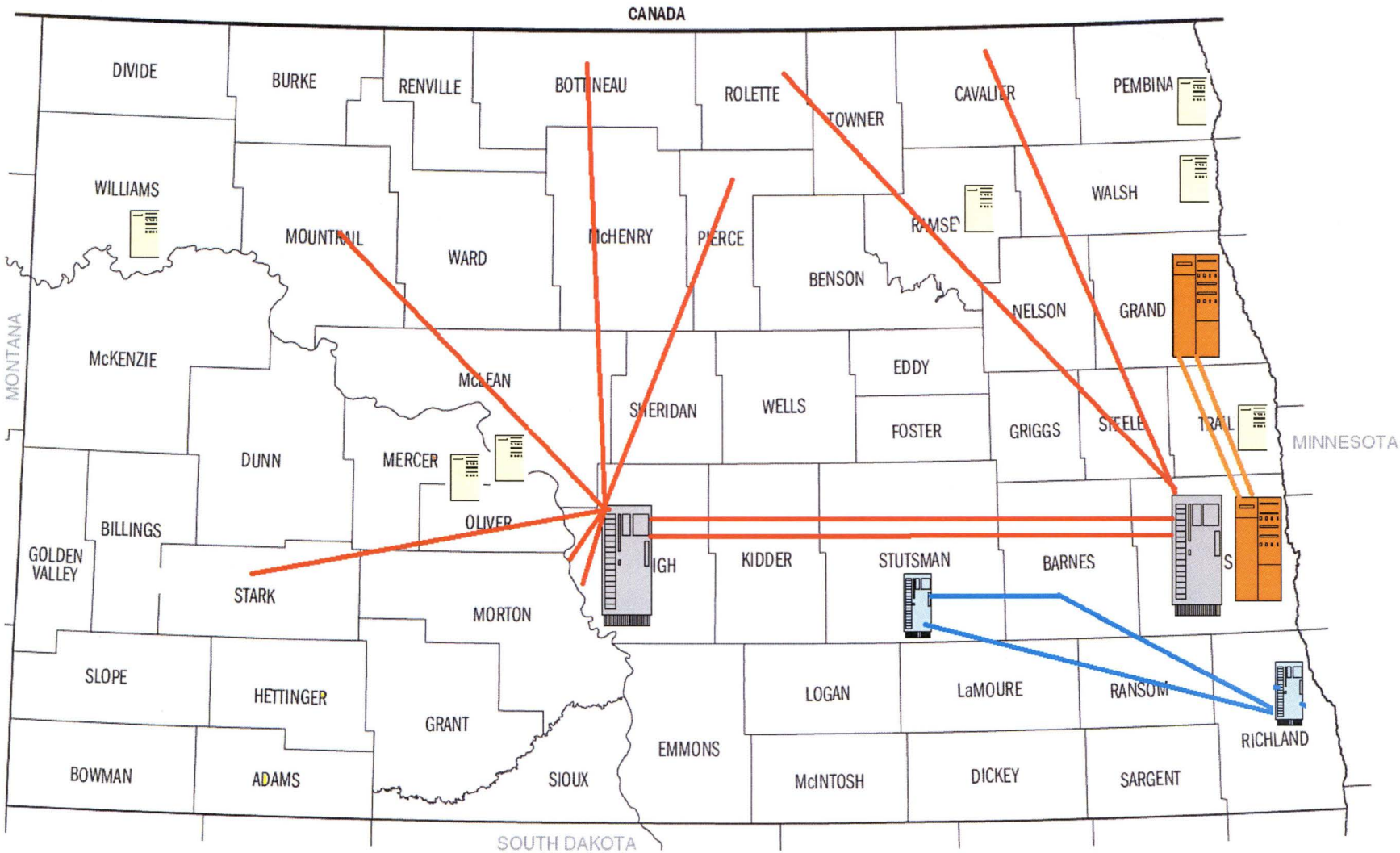
HB 1178

Attachment #5

Pg 1

Attachment # 5
HB 1178
3/14/2017
pg2

Public Safety Answering Point Connectivity



3/15/2017 HB 1178 pg. 1

TELEVATE

NORTH DAKOTA
STATEWIDE INTEROPERABLE RADIO NETWORK
SIRN 20/20
FEASIBILITY STUDY

FINAL REPORT

PUBLISHED: AUGUST 2016

SIEC.ND.GOV

Updated Sep 14, 2016

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EXECUTIVE SUMMARY

STUDY BACKGROUND AND OBJECTIVES

Public safety communications systems in the State of North Dakota are at a critical juncture. The State's current mission critical networks are comprised of a patchwork of dozens of aging and disparate systems that have not kept pace with the public safety community's evolving needs for increased reliability, performance, and interoperability. These land mobile radios, illustrated in Figure 1, serve as an essential communications tool for over 900 public safety and other public sector agencies comprised of 20,000 users and devices and 23 Public Safety Answering Points ("PSAP", "Dispatch", or 9-1-1 Call Centers") distributed across all 53 counties and several state agencies. Many of these systems—primarily anchored on 1970s technology, and implemented individually by State, local, and municipal entities over the past three decades—will soon reach the end of their functional lifecycle and, as the vendors begin to sunset old technologies, will no longer be supported by their manufacturers.

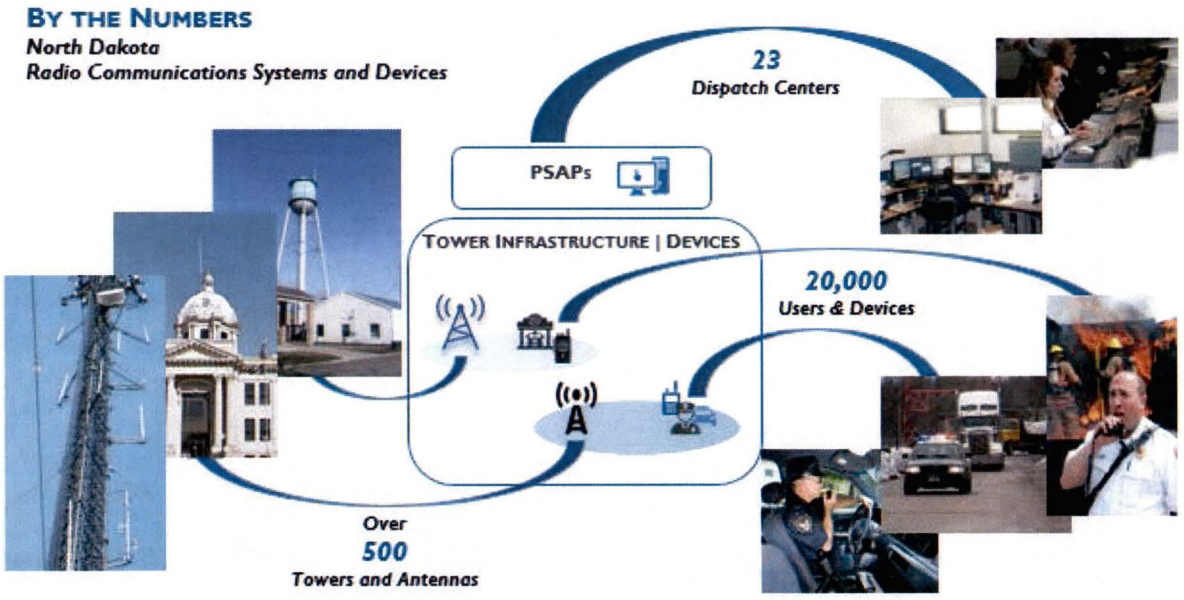

Figure 1: North Dakota Radio Communications Systems and Devices

Further, the State's population—the fastest growing in the nation over the past decade—continues to place a higher demand on all facets of public safety response and mitigation. Over this timeframe, as the state's population increase has led to a rise in public safety incidents, first-responders' daily operational needs, procedures, federal regulations and overall technology expectations have also evolved. Across the nation, higher emphasis is placed on planned and well-coordinated response to small and large incidents alike, which require more robust and modern interoperable technologies. Virtually all other states have implemented one or more networks anchored on the APCO Project 25 (P25) standard at the State, local, or municipal levels. While some statewide entities have made economical investments to sustain their legacy radio systems, many of these aging systems do not fulfill the evolving needs of public safety. Therefore, it becomes increasingly vital to determine an optimal path for modernizing these disparate legacy communications systems.

In response to these issues, the 64th State Legislature charged "the [North Dakota] Information Technology Department [ITD], under the direction of the Statewide Interoperability Executive

Committee[1], [to] determine the *feasibility* and *desirability* of implementing" of a *Statewide Interoperable Radio Network* (or SIRN 20/20)—a holistic evolution of the State and Local communications networks into a single integrated statewide solution. The SIRN 20/20 plan is designed to address the demand from population and emergency incident growth, enhance statewide interoperability and other prevailing first-responder safety expectations, and prevent technology obsolescence, all in a cost-effective and timely manner, and under a sustainable and well-governed framework.

A statewide technology initiative of SIRN's scale warrants a consensus-based process to clearly articulate the requirements of the public safety community, to define unmet gaps and limitations, and to assess the operational benefit and value of a modern, statewide solution. The Study employed a multi-pronged approach to fulfill these objectives: a technical capability and lifecycle audit of the existing state and local communications systems; thorough engagement and survey of virtually all North Dakota county public safety disciplines and representatives; and technical, operational and financial investigations of prospective solutions. Based on this thorough approach, the Study concluded that SIRN is a solution that is *desired* by State and local entities if perceived as an adequate and affordable replacement for local networks, and is *feasible* with sustainable funding streams and proper governance that provides transparency and responsiveness to local partners.

Stakeholder Survey and Technical Systems Audit Findings

Essential to the Study was an extensive outreach and engagement effort to inform the public safety community of the prospective SIRN 20/20 solution, to evaluate current system gaps, and to determine the extent to which SIRN 20/20 is considered a "desirable" and "feasible" solution. The efforts identified current and future communications needs, and evaluated whether SIRN addresses unmet mission-critical gaps, yields operational enhancements, and provides overall value to the public safety community. Further, the outreach effort evaluated the factors and criteria that would affect local participation, and assessed the level of local adoption and the financial and jurisdictive conditions under which local agencies would do so.

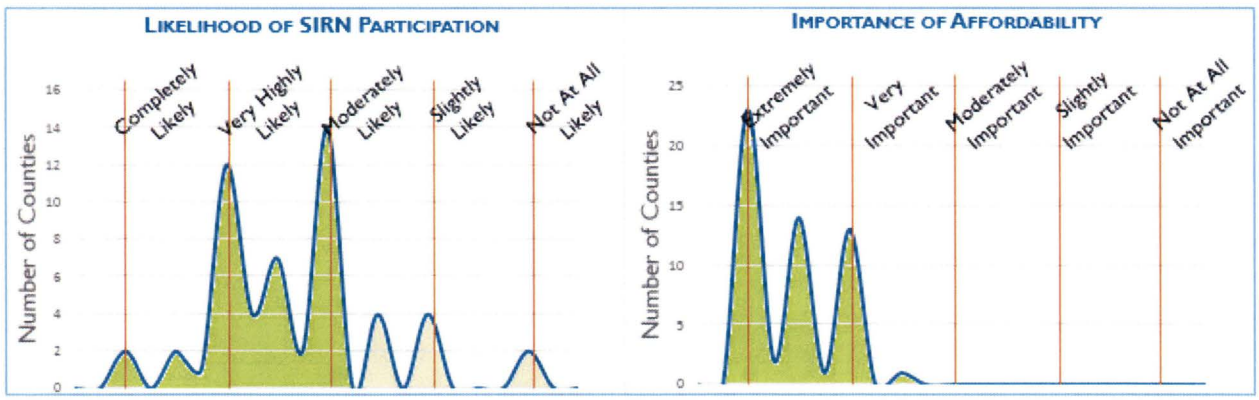

Figure 2: Likelihood of Joining SIRN (Left); Affordability as a Barrier to Adoption (Right)

North Dakota counties vary in their operational needs and financial capabilities; therefore, the SIRN 20/20 study yielded a range of opinions. However, as illustrated in Figure 2, the majority of counties, including over 90% of the State's population, acknowledge the value of, and *would participate in an integrated statewide*

[1] The SIEC is the governing oversight committee responsible for advancing voice and data interoperability for North Dakota and is composed of local and state representatives from law enforcement, fire, EMS, emergency services, 9-1-1, transportation, and other first responder disciplines.

solution and contribute their assets, provided that it is affordable and has equitable local (urban and rural) governance representation. Stakeholders cited various reasons including aging systems, deficient coverage, lack of interoperable capabilities, and funding constraints in supporting the need for a coordinated and sustainable *statewide* effort.[2] Not surprisingly, cost was cited as a primary factor influencing a county's overall ability and desire to participate; historical funding constraints have primarily restrained the modernization of the local systems. However, all but nine counties[3] indicated that locals should have a financial stake of *up to* 30% in SIRN 20/20, thus demonstrating their interests and obligations while acknowledging their financial constraints.

The system limitations cited by the stakeholder community were corroborated by comprehensive systems data collection and a technical evaluation effort. As previously noted, many of the systems in the State are nearing their serviceable lifespan—a primary impetus for the SIRN 20/20 Study; however, several technical and operational limitations are imposed by the ecosystem of disparate and legacy systems summarized below:

- **Abundance and Duplication of Systems:** This extensive ecosystem of local disparate systems deployed by State, Local, and Municipal entities over a period of 40 years has grown to comprise hundreds of public and private infrastructure elements. This practice has been perpetuated for many reasons including varied funding streams and constraints, and lack of established unified policies and procedures. This approach has led to a proliferation of numerous small networks which, in many cases, duplicate services and add a layer of operational complexity in supporting seamless communications, sustainment, and interoperability. Under the proposed SIRN 20/20 architecture, the infrastructure elements would be significantly reduced and largely leverage the existing infrastructure, thereby exploiting past investments, better managing cost, and enabling an accelerated deployment.

- **Interoperable Communications Constraints:** Because the current ecosystem of disparate systems is not networked and lacks mobility management, mutual aid communications among users from different systems is challenging. Mutual aid communications are typically conducted via a single repeated channel or a set of "off-network" or "unit-to-unit" channels (referred to as Bank 5[4]); under this configuration, first responders in the field lose access to their home Public Safety Answering Point (PSAP) or dispatchers. PSAPs are a critical element of the overall first response structure; dispatchers are responsible for overseeing field personnel, managing and distributing critical resources and information. Loss of contact with a home PSAP puts first responders in the field at risk, particularly if an emergency arises, and support personnel need to be dispatched. Under the proposed SIRN 20/20 solution, all users in the field as well as PSAPs would be connected and be able to maintain communications among all personnel.

- **Inefficient and Intensive Manual Operations:** Similarly, legacy technologies create an increased burden on field users and dispatchers, requiring constant awareness and announcement of their location with respect to a communications tower, along with changing channels as they move about their jurisdiction (or between towers). This aspect is typically handled by automated controllers in modern systems, allowing first responders to focus on their primary task.

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[2] The 2015 Preliminary Study Report focused on the gap analysis of the current state and local systems; surveys during that Study identify gaps and operational risks with current systems, while the SIRN 2016 Feasibility surveys sought to determine whether an integrated solution was the desired approach in addressing these gaps.

[3] These counties were also less likely to support the concept of SIRN.

[4] Bank 5 are a set of repeated/direct frequencies used on a regional or statewide basis for multi-jurisdictional use.

- **Coverage Issues and Reliance on Vehicular Repeaters:** Coverage is the most important attribute of a radio system. Despite the large number of radio towers, because a given user group only has access to their agency's subset of the overall infrastructure, many field users experience coverage gaps throughout the state. Vehicle mounted relays—commonly referred to as Vehicular Repeaters (VR)—are widely used to extend the range of networks for portable device communications. While a cost effective means of filling network coverage gaps, overreliance on VRs has many technical and operational constraints. Primary among them is the first responders' increasing operational expectation to use a portable (or handheld) communications device freely rather than the decades-old approach of "radioing in" from a vehicle-mounted mobile device. Many surveyed stakeholders noted their dissatisfaction with overreliance on VRs.

Baseline Operational Needs and Participation Criteria

Through work sessions, surveys, and interviews, the participating stakeholders collectively outlined and examined various SIRN 20/20 technical and operational attributes that maximize broad adoption, fulfill first-responder needs, and are necessary for SIRN to serve as a replacement of all current and planned county and municipal systems. These *baseline operational needs*, summarized in Table 1, present the technical and financial *service objectives* driving the development of a successful SIRN framework.

Attribute	Baseline Operational Needs	Service Objectives
 Radio Coverage	▪ Equal or Better overall coverage than current systems ("Coverage Equivalence") ▪ 95% Mobile Radio coverage in each county ▪ Portable Radio service along roadways and in populated areas ▪ Reliable in-building coverage in dense areas of the State	▪ Provide continuous and similar coverage experience for state, local, and municipal users and services ▪ Leverage mobility management to enable seamless roaming and transition from tower to tower for all approved users ▪ Support individual agency or function, and "announcement" communications capabilities
 Features | Maintenance	▪ Interoperability capabilities inter-county and inter-state ▪ Fire and Emergency Medical Services (EMS) paging systems support ▪ PSAP (911 call center) applications integration capability ▪ Network features capability support[5] ▪ Reliable and timely maintenance and issue resolution	▪ Develop solution that delivers or incorporates all land mobile radio (LMR) based services and applications as an integrated service ▪ Support communications among any and all radios and dispatch centers at all times by linking all wireless and wired services ▪ Ensure regional support and maintenance of all integrated elements through central remote monitoring and resolution by distributed staff

[5] "Support" refers to the ability of SIRN to support agency or county specific features. These features may not be initially delivered; however, SIRN would originally be designed to accommodate them and they may be funded by agency requiring the feature.

GOVERNANCE | FINANCE	▪ Collaborative and equitable decision process ▪ Financially and operationally sustainable ▪ Significant State funding allocation	▪ Ensure adequate local representation in network deployment and decision-making ▪ Fund the solution primarily through State initiatives

Table 1: Technical and Financial Service Objectives

PROPOSED SIRN 20/20 FRAMEWORK

Multiple options were evaluated with a primary goal of addressing these baseline needs and objectives; and in delivering a *statewide architecture that integrates all system infrastructure, dispatch centers, end-user devices and, additionally, provides interfaces to ancillary applications and other neighboring state systems supporting regional and statewide day-to-day, mutual aid and large scale mission critical communications* (See illustration in Figure 3). The Study puts forth a holistic framework for implementing such a statewide solution that includes a detailed conceptual design and implementation plan, strategies for its acquisition and sustained funding, and recommendations for the associated management and governance including agreement templates for participation, cost-distribution and asset-sharing among the various state and local entities. As with any extensive network of this nature, implementing SIRN will not be without its challenges; the Study details various potential technical and programmatic risks and outlines possible mitigation strategies.

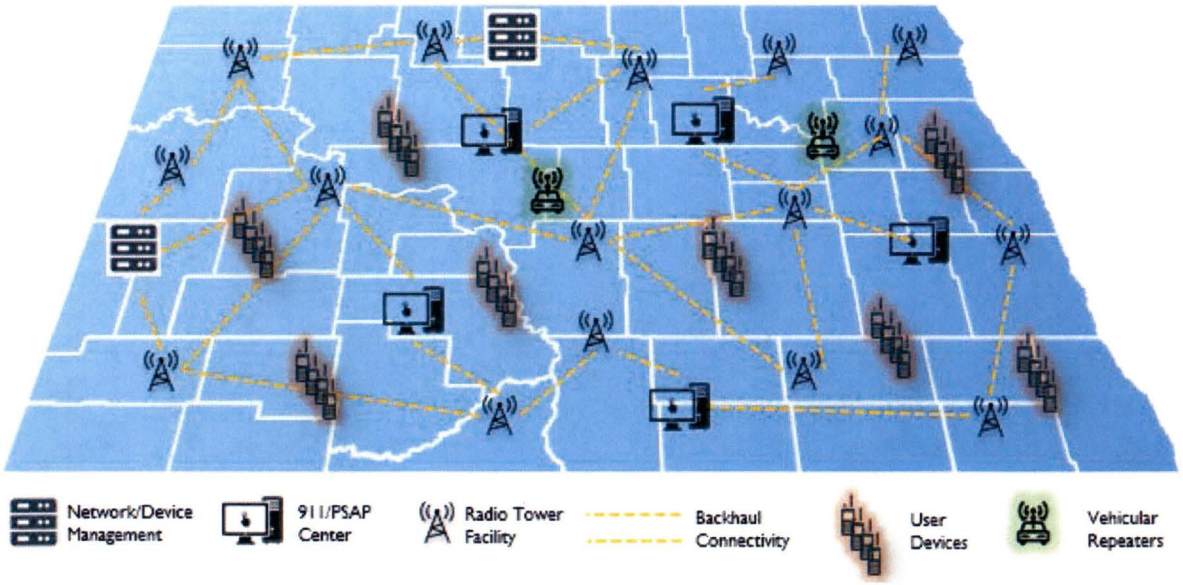


Figure 3: Conceptual Integrated SIRN Architecture

Table 2 outlines three SIRN 20/20 options, details the corresponding capital and operational costs, and presents brief evaluations against a set of criteria for *fulfilling the baseline needs, in a timely and risk-averse manner*. The estimated total capital cost of SIRN 20/20 is between $ 170 and $ 180 M; the ultimate cost will depend on the final architecture, leverage of existing assets, adoption rates, and acquisition strategies.

The table also enumerates annual operational expenses, and identifies currently incurred State based annual expenses that would be directly transitioned to SIRN operations.[6]

SIRN Options and Lifecycle Costs (in Millions)			
Options Description	**1. Hybrid VHF[7] Portable[1] Network[2]** ▪ Network VHF mobile coverage statewide ▪ *Network-Based* VHF Portable service ▪ 800 MHz Network Portable service in "Urban Areas"	**2. Hybrid VHF Mobile Network[2]** ▪ Network VHF mobile coverage statewide ▪ *VR-Centric* VHF Portable service ▪ 800 MHz Network Portable service in "Urban Areas"	**3. 800 MHz Mobile Network[3]** ▪ Network 800 MHz mobile coverage statewide ▪ *VR-Centric* 800 MHz Portable service ▪ 800 MHz Network Portable service in "Urban Areas"
Fixed Networks & Subsystems	90.3	63	93
Local Elements	12.4	12.4	12.4
Subscriber Devices	74.4	90.6	80.4
Total Capital Costs	**177.1**	**166**	**185.8**
Subscriber Upgrade [Savings]	-4.9	-3.3	N/A
Estimated TOTAL with Savings	**172.2**	**162.7**	**N/A**
Total Annual Operational Costs	**12.91**	**9.97**	**13.02**
"Current OpEx Transfer"	3.06	2.78	3.06
"New OpEx"	9.85	7.19	9.96
Fulfills Baseline Requirements	Adequately	Partially	Partially
Leverage of Existing Assets	Yes	Yes	Yes (limited)
Requires Local Asset Contribution	Yes – Significant State and local Assets	Yes – Primarily State Assets	Yes – Limited Need
Implementation Timeline	Long	Medium	Long
Implementation Risk	Medium	Low	Low-Medium
Ease of Operations and Sustainment	Equivalent	Equivalent	Equivalent

[6] Although, not represented in this Study, local jurisdictions also would incur operational and capital costs; SIRN would largely preclude other costs for land mobile radio systems at the State and Local levels.
[7] Very High Frequency

[1] Portable refers to a network that fulfills service levels as defined in the Baseline Requirements, and not a ubiquitous statewide on-street portable service. This option includes some VR usage to increase reliability in very remote areas.
[2] Hybrid VHF Networks include 800 MHz Layers in Urban Areas for various performance and operational reasons.
[3] This option comprises of 800 MHz throughout the State.

Table 2: SIRN Options and Lifecycle Costs (in Millions)

Various approaches for potential savings may be available including reusing some existing subscriber radios that are presented in Table 2 (See *Subscriber Upgrade [Savings]*). The report discusses general strategies for cost-efficiencies with the most important factor being an open procurement that fosters maximum vendor competition. While there are only a handful of companies that can provide large LMR systems, there are several firms that could provide subscriber devices, integration services, and maintenance services. SIRN procurement would be organized to maximize the market space for each of those elements allowing vendors to bid on one or all of these elements. It is recommended that the *State and Local* stakeholders plan for a budget of $ 175 M; savings that come to bear due to variations in assumptions, most of which will be solidified within the first biennium, could be eliminated from the budget in subsequent biennia, or may be diverted to address other elements.

Implementation of a large government technology solution, particularly one that supports a mission-critical purpose for hundreds of agencies across dozens of jurisdictions, is a significant undertaking requiring a well-conceived and coordinated effort among the vendor community, the SIRN Operating Entity, the governing bodies, and the large community of first and second responders. A robust plan, coupled with the requisite funding stream and decision-making, is critical for the timely implementation of SIRN. With several current systems facing their end-of-life dates in 2018, a condensed timeline is essential for SIRN's success, as delays could cause attrition of local support, place aging systems at risk, reduce the ability to leverage assets, and lessen the overall likelihood of a truly integrated solution. A comprehensive maintenance, operations, and sustainment plan is also essential: The SIRN Operations and Maintenance (O & M) structure would be comprised of internal or third-party staff, or a combination thereof depending on the acquisition strategy and information technology (IT) management philosophy the State pursues.

Estimated Annual Costs and Potential Funding Sources

It is recommended that the State establish a mechanism for fully funding SIRN before embarking on the project. SIRN 20/20 capital outlay may be expended per a milestone-based model or, if the State pursues a financed or bonded option, the costs may be distributed equally over the systems' lifecycle (See Table 3).

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Milestone-Based	11	54	49	52	42	11	11	12	12	12	13	13	13	14	14	14	15	15
Bonded or Financed	15	15	18	22	26	26	26	26	27	27	27	28	28	28	29	14	15	15

Table 3: Estimated Annual Costs (in Millions)[8]

The Study explored and analyzed various funding source options that may be available in the State of North Dakota, and that have also historically proven to be successful and viable in other states. Public safety systems are typically funded by a mixture of general funds, new self-funding initiatives (such as taxes and fees, 911 fees), or federal and state grants structured as recurring revenue sources or one-time capital infusions. Table 4 summarizes potential sources to fund SIRN 20/20, which include taxes and fees where nominal increases can produce significant annual sums, as well as other sources where current State rates

[8] Per the Hybrid VHF Portable model excluding the existing subscribers leverage.

are substantially lower that other states in the region. By and large, the level of potential revenues across the proposed sources suggest that it is possible to fund the bulk of the projected SIRN costs without unduly encumbering the constituency. The report also discusses the impact of the ever-fluctuating global crude oil costs and the implications on the State's natural resources revenues, as well as the possibility of using the *State's Strategic Investment & Improvement Fund* and *Political Subdivision Allocation Fund* to fund a portion of SIRN.

Option	Proposed Changes and Estimated Annual Revenue	% SIRN Cost[9]
Cigarette Tax Increase	▪ $0.25 Increase Per Pack → $14 M ▪ $0.50 Increase Per Pack → $28 M ▪ $1.00 Increase Per Pack → $56 M	▪ 70 % ▪ 145% ▪ 290%
Hotel Lodging Tax	▪ $0.50 Increase Per Night → $1.5 - 2.0 M ▪ $1.00 Increase Per Night → $ 3 - 4.0 M	▪ 10% ▪ 20%
Traffic Citation Increase	▪ Double → $ 3.5 M ▪ Triple → $7 M ▪ Quadruple → $10.5 M	▪ 18% ▪ 35% ▪ 55%
Driver's License Fee	▪ $10 Increase → $5.2 M ▪ $15 Increase → $7.9 M	▪ 27% ▪ 42%
Vehicle Registration Fee	▪ $10 Increase → $8.4 M ▪ $15 Increase → $12.7 M	▪ 45% ▪ 65%
911 Fee	▪ Depends on County	▪ Variable
Gas Tax Increase	▪ 2.5c Increase Per Gallon → $12 M ▪ 5 c Increase Per Gallon → $24 M	▪ 65 % ▪ 125%
Alcohol Tax Increase	▪ 10 c Increase Per Gallon → $3.4 M ▪ 20 c Increase per Gallon → $6.8 M	▪ 18% ▪ 36%
Federal Grants	▪ $ 2 – $ 3 M per annum	▪ 15%

Table 4: Potential SIRN Funding Sources

STATE AND LOCAL COST-SHARING MODELS

Local stakeholders have indicated that while the State should earmark the bulk of SIRN funds, counties and municipalities should have a financial stake in SIRN. In order to establish a justifiable sharing model, SIRN was divided into functional elements, each of which would have a different distribution of costs between the State and local entities. These functional elements and proposed cost-sharing models are illustrated below (Figure 4); in general, the State would fund 80% of the capital and operational costs of the "central elements," while the remaining costs are would be locally funded and distributed across counties by population and/or device quantities. The cost-sharing model also introduces a Support Fund to support entities, such as independent volunteer fire departments, that may not be able to afford the cost of participation, and to ensure financial barriers do not delay the implementation, potentially placing the program at risk.

[9] As a percentage of the projected combined capital and operational costs of SIRN. As illustrated in the table, several sources could be used to cover a substantial percentage of SIRN; alternatively, certain proposed sources could cover the full amount.

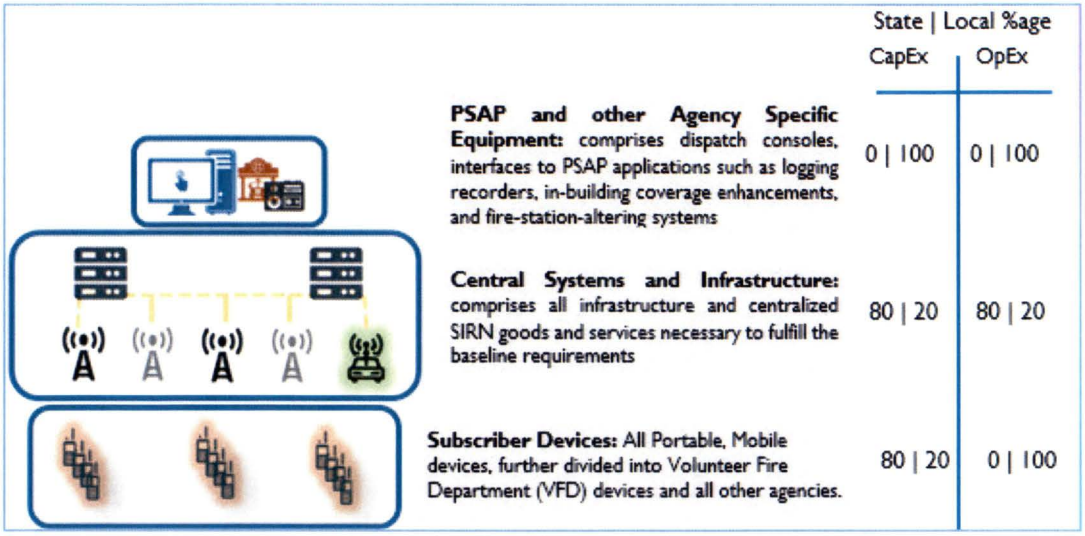


Figure 4: Proposed Cost-Sharing Models

SIRN Governing Models

Central to the success of a statewide solution is a governance framework that defines the shared ownership, decision-making, operation and sustainment at all levels of government. A consolidated radio network would require even greater collaboration and present significant opportunities for State, Local and Tribal agencies to enhance interoperability and cross agency/jurisdiction response and mutual aid. The Study recommends a number of actions to establish a successful SIRN 20/20 governance structure and composition based upon interviews, primary source document research and successful approaches in other states.

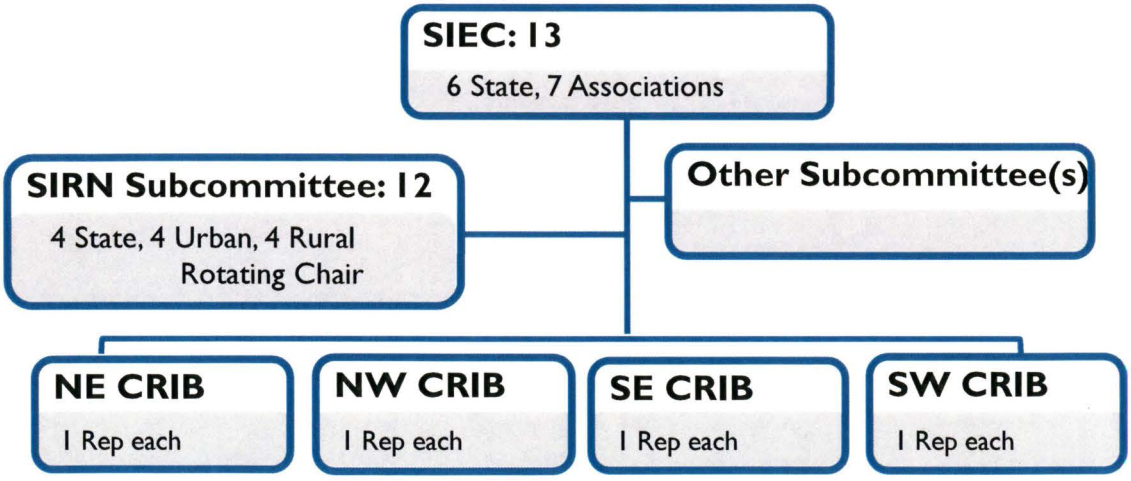


Figure 5: Recommended Structure for SIRN Governance

The primary recommendations constitute certain modifications to SIEC capabilities and statutes, and specifically, the creation, within the SIEC, of a SIRN 20/20 subcommittee focusing on all program matters. The SIRN 20/20 subcommittee would be evenly composed of State,[10] local "Urban" and local "Rural"

[10] SIEC should endeavor to appoint one or more members of the SIRN Subcommittee to represent tribal interests; such a member would count toward the "State" third of the SIRN membership.

representatives with diversity of geography, public safety discipline, relevant professional experience, and relevant skill sets. The SIRN 20/20 subcommittee would originate all program policy measures and propose them to the SIEC, which must adopt the measure or decline with explanation; the SIEC may not adopt language unless it is submitted by the SIRN 20/20 subcommittee. The Study recommends that the SIEC gain and exercise statutory authority to engage, as the level of work requires, its own professional staff, including both a manager to perform administrative and policy tasks for the SIEC, as well as a minimum of two Regional Interoperability Coordinators (RICs) to foster and facilitate regional/local communications. Finally, as illustrated in Figure 5, the SIEC would establish four Coordinated Regional Interoperability Boards (CRIBs) as subcommittees of the SIEC that would best represent the respective regional partners.

The SIEC, in collaboration with the SIRN Subcommittee, would be responsible for developing and establishing a set of policies and procedures on daily operations, system usage, cost-sharing models, asset-sharing agreements and several SIRN initiatives.[11]

Near-Term State-Led/Regional Initiatives

Communications Initiatives

There are a variety of near- and mid-term initiatives that can be implemented to advance public safety communications in the State of North Dakota. These efforts can be pursued in parallel with, and incorporate some elements of the SIRN initiative and planning process detailed in this document. These initiatives can be implemented within the SIEC or build upon the current efforts of the Department of Emergency Services (DES), which spearheads and facilitates many beneficial training and exercises support statewide. The SIEC should establish the Coordinated Regional Interoperability Board (CRIBs), and establish the necessary staff to foster a more concerted avenue for SIEC or communications activities at the regional level.

Advancing the SIRN Study

With respect to advancing the SIRN 20/20 effort, North Dakota Information Technology Department (ITD), in collaboration with the SIEC, has already begun concerted efforts to continue the outreach efforts and further evolve the structure for SIRN 20/20. Assuming SIRN 20/20 advances, a set of recommended efforts, many of which are discussed in this report, should begin shortly afterwards, including:

- Implementation of the proposed Governance Structure
- Advance the Outreach, Public Relations and Regional Efforts
- Additional field studies to document and evaluate network assets
- Establish a program office to spearhead the procurement process

[11] The Study provides proposed templates including asset-sharing and participation agreements.

INTRODUCTION

The State of North Dakota has experienced a population increase of 18 % over the past ten years making it the fastest growing state in the nation. While this growth has decelerated in the past two years, the *permanent* population of several counties, particularly within the fossil fuel-rich counties has significantly increased, placing a higher demand on all facets of public safety response and mitigation. Public safety entities use mission critical radio communications systems as their mission-essential lifeline communications tool to distribute and relay mission critical information. While a few select State entities have made investments in communications technologies to maintain pace with these evolving needs, mission-critical systems throughout the state are primarily comprised of disparate solutions anchored on 1970s technology, many of which will soon reach the end of their functional lifecycle and will no longer be supported by their manufacturers. Concurrently, as the State's population increase has led to a rise in public safety incidents and activities, first-responders' operational needs, procedures, federal regulations and overall technology expectations have also evolved to embrace more robust and modern technologies not met by their current systems.

In response to these issues, the State Interoperability Executive Committee (SIEC)[12] sponsored the North Dakota Statewide Radio Systems Assessment and Evolution Study[13] that proposed to the 64th State Legislature in January of 2015 an integrated statewide network to consolidate and evolve the myriad of legacy public safety radio systems. The *Statewide Interoperable Radio Network* (or SIRN 20/20), as proposed within the Study, conceived a holistic and integrated evolution of the State and Local communications networks that is designed to address and mitigate key public safety communications objectives – addressing the demand from population and emergency incident growth, enhancing statewide interoperability and other prevailing first-responder safety expectations, and preventing technology obsolescence – in a cost-effective and timely manner.

The 64th State Legislature charged "the Information Technology Department, under the direction of the Statewide Interoperability Executive Committee, [to] determine the *feasibility* and *desirability* of implementing" a statewide radio interoperability network on a broad consensus-driven study and to "report to the appropriations committees of the sixty-fifth legislative assembly regarding the department's evaluation of the project … and recommendations for proceeding with the project or discontinuing future participation."[14] The North Dakota Information Technology Department, in collaboration with the SIEC, engaged, Televate, LLC and its partner The Interoperability Group, to:

- Comprehensively determine the desirability of an integrated statewide solution, and participation of local entities, anchored on extensive engagement and evaluation of the public safety community
- Evaluate the feasibility from an array of technical, operational, financial, and programmatic perspectives
- Outline a detailed, cost-effective, sustainable and well-governed solution that meets the needs of the public safety community

This document is the Final Report of a six month-long SIRN 20/20 Feasibility Study summarizing the findings and proposed solutions. The document is generally divided into three sections:

[12] The SIEC is the governing oversight committee responsible for advancing voice and data interoperability for North Dakota and is composed of local and state executive representatives from law enforcement, fire, EMS, emergency services, 9-1-1, transportation, and other first responder disciplines.
[13] "North Dakota Statewide Radio Systems Assessment and Evolution Study" (Dec. 15, 2014).
[14] Senate Bill 2016, Section 5.

- ***Need for Evolution***: Justification for the need and desirability of SIRN 20/20 based on an extensive outreach and survey effort as well as independent technical evaluation of the current state and local mission critical radio systems
- ***Proposed Solutions Framework***: Detailed technical foundation outlining the technology, architecture, cost options, designs, implementation and migration plans for optimal solutions that meet stakeholder defined and verified objectives
- ***Financial and Governance Framework***: Estimated SIRN 20/20 lifecycle costs and recommendations on revenue generation, cost-sharing models, and, importantly, the governance structure that fosters equitable representation of, and decision-making by all state, local and tribal interests

Several additional documents, some of which are submitted as Appendices to this Final Report, have been created over the course of the Study. These documents provide further detail on the Study activities and material summarized within this Final Report. Relevant documents include:

1. SIRN 20/20 Architecture, Implementation and Migration Plans Overview
2. SIRN 20/20 VHF Coverage Plan and Design
3. SIRN 20/20 Very High Frequency (VHF) Survey and Plan
4. SIRN 20/20 Survey and Needs Assessments Findings Summary
5. SIRN 20/20 Governance Recommendations
6. SIRN 20/20 Participation Memorandum of Understanding Template
7. SIRN 20/20 Asset-Sharing Agreement Template
8. SIRN 20/20 Cost Estimates Development and Revenue Models
9. SIRN 20/20 Study Outreach, Data Collection, Requirements Gathering Process Overview

STUDY METHODOLOGY

The SIRN 20/20 Feasibility Study followed a comprehensive and well-conceived methodology in performing a detailed assessment of the State's public safety systems and stakeholders, and in developing the corresponding recommendations for the SIRN 20/20 framework.

- ***Stakeholder Outreach and Assessment:*** Extensive outreach effort to inform, engage and obtain requirements and feedback from the public safety community regarding the SIRN 20/20 proposition. These activities included 16 conferences and workshops in eight regions; online surveys; multiple educational and informational newsletters and web material; dozens[15] of individual county web-conferences, requirements gathering sessions, and interviews; governance interviews, and hundreds of electronic and telephone correspondences. Through these efforts, all 53 counties in the State were in one way or another engaged or surveyed in the process.

- ***Extensive Systems Data Collection and Evaluation:*** Data collection accounted for a substantial portion of the Study's effort. Through the outreach efforts noted above, and independent field surveys, data on the ecosystem of public safety communications systems and devices, was collected and analyzed. The objective was to quantify and evaluate the scope of the current systems and devices, and determine existing assets for use in future solutions.

- ***Design and Recommendations Development:*** Detailed solutions (technology, finances, governance) development with continued feedback from state and local stakeholders. Multiple options were developed and evaluated against how suitability and cost-effectively they met the end user needs.
- ***Market Research:*** Research of prevailing and emerging technologies, lessons learned from similar efforts in other states, prospective funding initiatives, relevant State legislation and bylaws.

The Study culminates in the creation of a framework for implementing a statewide solution – a detailed conceptual design and implementation plan, strategies for its acquisition and sustained funding, and recommendations for its management and governance including agreement templates for participation, cost-distribution and asset-sharing among the various state and local entities.

[15] Findings from the North Dakota Statewide Radio Systems Assessment and Evolution Study are incorporated where applicable across various facets of the SIRN feasibility Study.

THE NEED FOR AN EVOLUTION

OVERVIEW AND BACKGROUND

A statewide technology initiative of SIRN 20/20's scale warrants a consensus-based process to clearly articulate the requirements of the public safety community, to define unmet gaps and limitations, and to assess the operational benefit and value of a modern, statewide solution. The Study employed a multi-pronged approach to fulfill these objectives – a technical capability and lifecycle audit of the existing state and local communications systems; thorough engagement and survey of virtually all North Dakota county public safety disciplines and representatives; and technical, operational and financial investigations of prospective solutions, against current and future operational needs.

Population Growth and Public Safety Operations Evolution

North Dakota has experienced a population increase of 18 % over the past ten years making it the fastest growing state in the nation. While this growth has decelerated in the past two years, the *permanent* population of several counties, particularly within the fossil fuel-rich counties has significantly increased, placing a higher demand on all facets of public safety emergency incident response and mitigation. As illustrated in Figure 6,[16] this population growth has generated substantial increases in the crime index (12% since 2009), EMS incidents (45% since 2006), and 9-1-1 call volume (80% since 2006), all of which place a great burden on the voice and paging communications networks used by the public safety community.

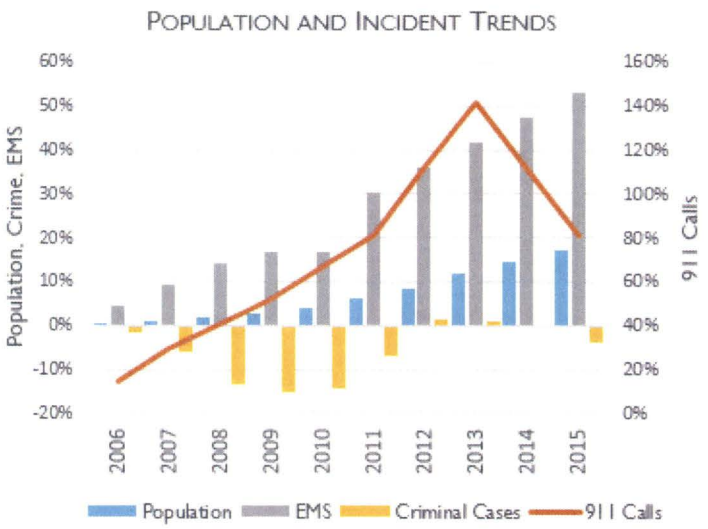


Figure 6: Population and Public Safety Incident Trends (2006 – 2015)

In addition to the overall population and incident growth, public safety response and communications procedures have evolved over this timeframe. Higher emphasis is placed on planned and well-coordinated response to small and large incidents alike, which require modern and interoperable communications systems. First responders have also come to expect the ability to use a portable (or handheld) communications device rather than the decades-old approach of "radioing in" from a vehicle-mounted mobile device.

Continued Use of Aging and Legacy Systems

While various entities within the State have made investments in communications technologies to maintain pace with these evolving needs, as detailed within this report, these mission-critical systems are primarily comprised of **disparate solutions** anchored on 1970s technology. Populous and oil-rich counties have

[16] Data assembled from annual reports of (1) North Dakota Association of Counties Emergency Communications Coordinating Committee 911 Biennium reports (Note: Report including 2014 – 2015 data is in *Draft Form*); (2) North Dakota Court Systems Annual Report; (3) North Dakota State Online Annual Reporting EMS data (data available between 2006 – 2011; extrapolated linearly for 20012 – 2015) ; (4) US Census Population Estimates

independently implemented solutions in recent years to support their growing needs; however, dozens of rural counties employ legacy aging systems *or* the State Radio Network[17] – a statewide communications network originally architected in the 1970s. Both legacy and even some recent equipment are at a critical juncture as vendors begin their planned obsolescence of these technologies, placing an even larger burden on the county-level systems. Between 2017 and 2019, thousands[18] of portable and mobile radios, dozens of radio dispatch consoles, and infrastructure elements will no longer be supported by their manufacturers.

Faced with lack of vendor support and aging equipment on mission-critical equipment, many states have implemented integrated statewide radio communications systems anchored on a public safety land mobile radio (LMR) standard established in the early 1990s. In the past decade, these systems have employed APCO P25 Phase I or Phase II networks – a standardized set of large scale systems compliant with the predominant US standard for public safety systems. Established in 1989, the Association of Public Safety Communications Officials Project 25 (APCO P25) is a suite of standards that has evolved over the past two decades into a mature set of technologies employed across the nation. Virtually all states in the United States with the exception of North Dakota have implemented or are currently deploying one or more trunked networks at the state, local or municipal levels. In fact, the migration to such technologies of neighboring states such as Minnesota, South Dakota and Montana have reduced the State's ability to maintain interoperable communications with their counterparts (Migration to a standardized technology would improve cross-State interoperable communications). It is important to note that not all aspects of this standardized technology have necessarily proven to be worthwhile for all jurisdictions – given its rural geography and low population, North Dakota sustained its communications needs, and even improved interoperability, through economical investments in legacy technologies. However, as the Project 25, or P25, standard emerges as the only APCO-sanctioned standard, and LMR equipment vendors sunset old technologies, it becomes increasingly important to determine an optimal evolution for these disparate legacy systems at this juncture.

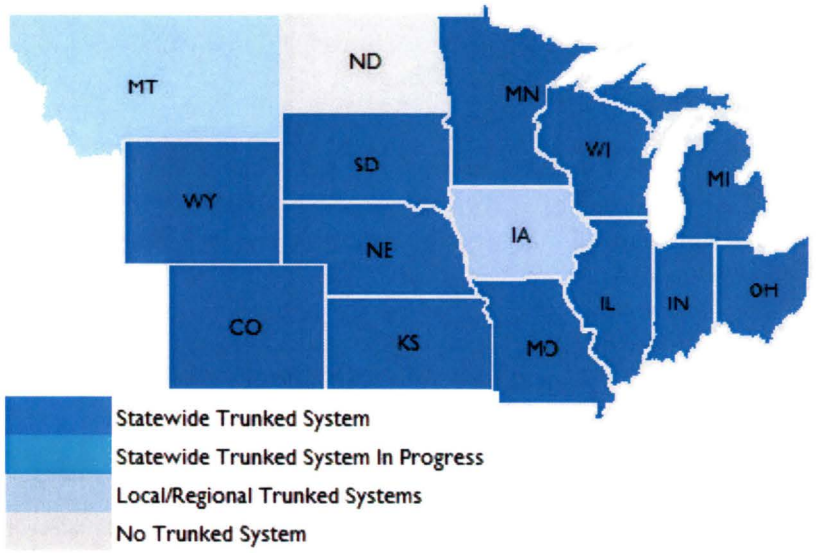


Figure 7: Mid-West and North Central Region State and Local Trunked Systems

[17] The Department of Emergency Services (DES), in collaboration with Department of Transportation (DOT), operates a 43-site land mobile radio system, commonly referred to as State Radio. The State Radio network, and the associated dispatch services offered by State Radio, serves as the primary mission critical voice and paging communications system for all State agencies, and twenty-four (24) North Dakota counties.

[18] Nearly 5,000 radios will not be supported by their vendor by 2019, an additional 13,000 are either already past their serviceable lifespan, will face vendor support termination, or cannot be used on SIRN 20/20 technologies. (See Tower and Subscriber Databases for additional details)

The SIRN 20/20 Vision

The SIRN 20/20 solution is conceived as a holistic and integrated evolution of the State and Local communications networks that tackles the key objectives – addressing the demand from population and incident increase, enhancing interoperability and other prevailing first-responder safety expectations, and avoidance of technology obsolescence – in a cost-effective and timely manner. The following sections discuss the findings of two major Study efforts – *stakeholder feedback* on and *technical analyses* of the current systems, employed in evaluating *the desirability and the feasibility* of SIRN 20/20.

STAKEHOLDER SURVEYS AND OUTREACH

The scale of SIRN 20/20 necessitates *a consensus-based process to clearly articulate the needs of the public safety community, to define unmet gaps and limitations, and to assess the operational benefit and value of a modern, statewide solution.* The State Legislature specifically requested that the desirability and feasibility of SIRN 20/20 be anchored on consultation with affected stakeholders. Therefore, the Study's conclusions and recommendations draw upon a comprehensive needs assessment and engagement of public safety stakeholders throughout the State.

Stakeholder outreach, education, and assessment accounted for a substantial effort of the Study scope with multiple activities over a four-month period. As detailed in the methodology section,[19] these activities included 16 conferences and workshops in eight regions; an inclusive online survey; multiple educational and informational newsletters and web material; dozens[20] of individual county web-conferences, requirements gathering sessions, and interviews; and hundreds of electronic and telephone correspondences (See Table 5). Through these efforts, all 53 counties in the State were in one way or another engaged in the process; opinions within a given county may differ, however, the findings and recommendations in this report are representative, holistic, and comprehensive.

Outreach and Information Forums	Participants/Audience
Individual Meetings	38 Counties, 2 State Agencies, 1 Tribal Entity, 3 State Associations
16 Regional Conferences	46 Counties, 2 State Agencies, 151 Attendees
Monthly Newsletters & Informational Video	Distribution list of 950 Individuals
April 2016 Online Survey	All 53 Counties, 6 State Agencies, 140 Responses
October 2014 Online Survey	43 Counties, 5 State Agencies, 320 Responses
Systems Data Collection	Data collected from 42 Counties and 3 State Agencies
Statewide conferences, committees, and presentations	33 Informational presentations and discussions with 2 committees, 8 public safety associations, 8 cities, 22 public safety answering points, and 7 state agencies

Table 5: SIRN 20/20 Outreach Overview

[19] See Supplemental Document 11.9 - SIRN Study Outreach, Data Collection, Requirements Gathering Overview

[20] Findings from the 2015 Preliminary Study (North Dakota Statewide Radio Systems Assessment and Evolution Study – 2015) are also incorporated where applicable across various facets of the SIRN feasibility Study. This preliminary study laid the groundwork for identifying communications systems issues leading up to the SIRN Feasibility Study.

The primary objectives of the outreach and assessment effort was to determine:

- **Desirability**: The extent to which SIRN 20/20 is considered a "desirable" solution across a myriad of operational attributes by the first-responder community at the State, County, and Municipal levels. The efforts identified current and future communications needs; and evaluated whether SIRN 20/20 addresses unmet mission-critical gaps, yields operational enhancements and provides overall value to the public safety community.

- **Participation and Conditions**: Broad participation by local stakeholders is a critical element to the success of SIRN 20/20, from a technical and financial perspective. The outreach effort evaluated the factors and criteria that would affect local participation, and assessed the level of local adoption and the financial and jurisdictive conditions under which they would do so.

- **Feasibility:** The extent to which SIRN 20/20 is feasible from a technical, operational, financial and governance standpoint.

SIRN 20/20 Highly Desired with Conditions[21]

North Dakota counties vary in their operational needs and financial capabilities; therefore, the SIRN 20/20 study yielded a range of opinions. However, as illustrated in Figure 8, the majority of counties acknowledge the value of, and would *participate in, an integrated statewide solution and contribute their assets* provided that it is affordable and has equitable local (urban and rural) governance representation. Stakeholders cited various reasons including aging systems, deficient coverage, lack of interoperable capabilities, and funding constraints in supporting the need for a coordinated and sustainable *statewide* effort.[22]

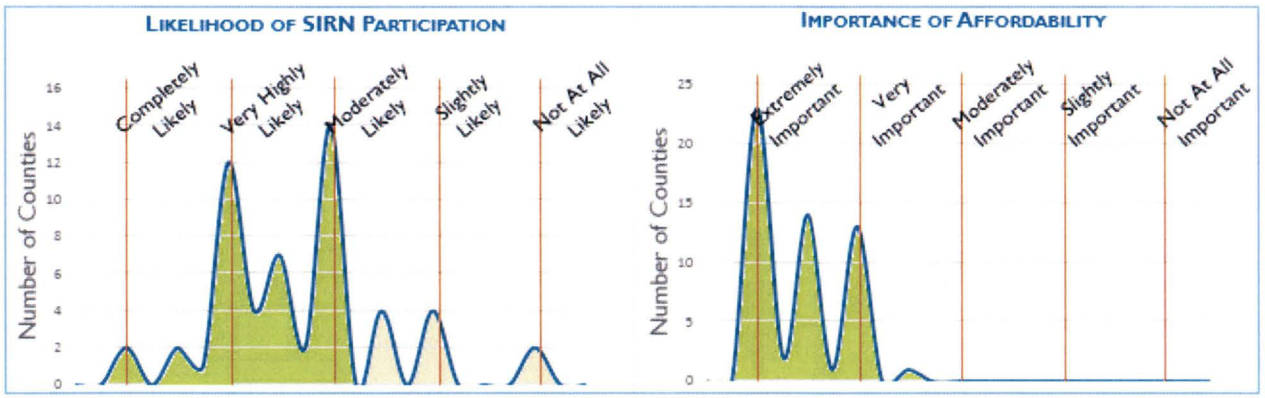
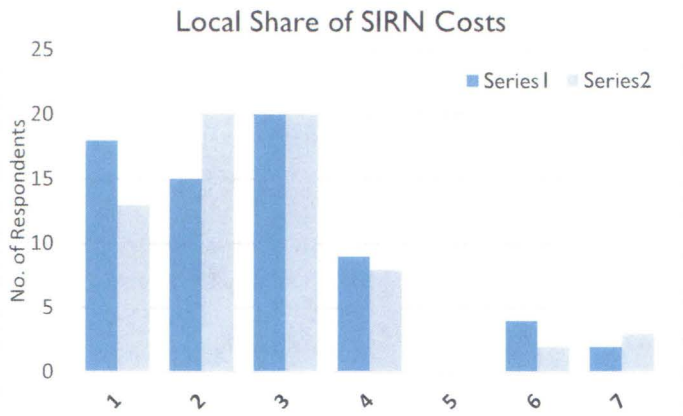


Figure 8: Likelihood of Joining SIRN 20/20 (Left); Affordability as a Barrier to Adoption (Right)

[21] See Supplemental Document 11.4 SIRN 20/20 Survey and Needs Assessments Findings Summary

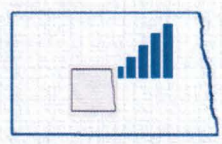
[22] The 2015 Preliminary Study Report focused on the gap analysis of the current state and local systems; surveys during that Study identify gaps and operational risks with current systems, while the SIRN 2016 Feasibility surveys sought to determine whether an integrated solution was the desired approach in addressing these gaps.

Not surprisingly, cost was cited as a primary factor influencing county overall ability and desire to participate (Figure 8); historical funding constraints have been the primary reasons limiting the modernization of the local systems (Few counties noted satisfaction with their current systems for not strongly considering SIRN 20/20, indicating that given an affordable solution, they would prefer to migrate to a different system). However, all but nine counties[23] indicated that local entities should have a financial stake of *up to* 30% in SIRN 20/20 (*See Figure, Right*) that is distributed across the counties by population or radio user densities, thus representing their interests and obligations while acknowledging their financial constraints. Additionally, counties and municipalities were amenable to leveraging and contributing their assets – including access to civil infrastructure such as radio tower space, backup generators, equipment, shelter space) under the right conditions. These assets have considerable value and cast savings consideration to the SIRN 20/20 recommendation.



Baseline Operational Needs

In addition to determining the participation factors above, these stakeholder engagement activities were the basis for collectively outlining and examining various SIRN 20/20 technical and operational attributes that maximize broad adoption, fulfill first-responder needs, and are necessary for SIRN 20/20 to serve as a replacement of all current and planned county and municipal systems. The outcome of these activities is the set of "Baseline Operational Needs" illustrated below. These requirements present the technical and financial factors integral to the analysis of successful SIRN 20/20 solutions, and drive the development of the SIRN 20/20 solutions framework detailed in this report.

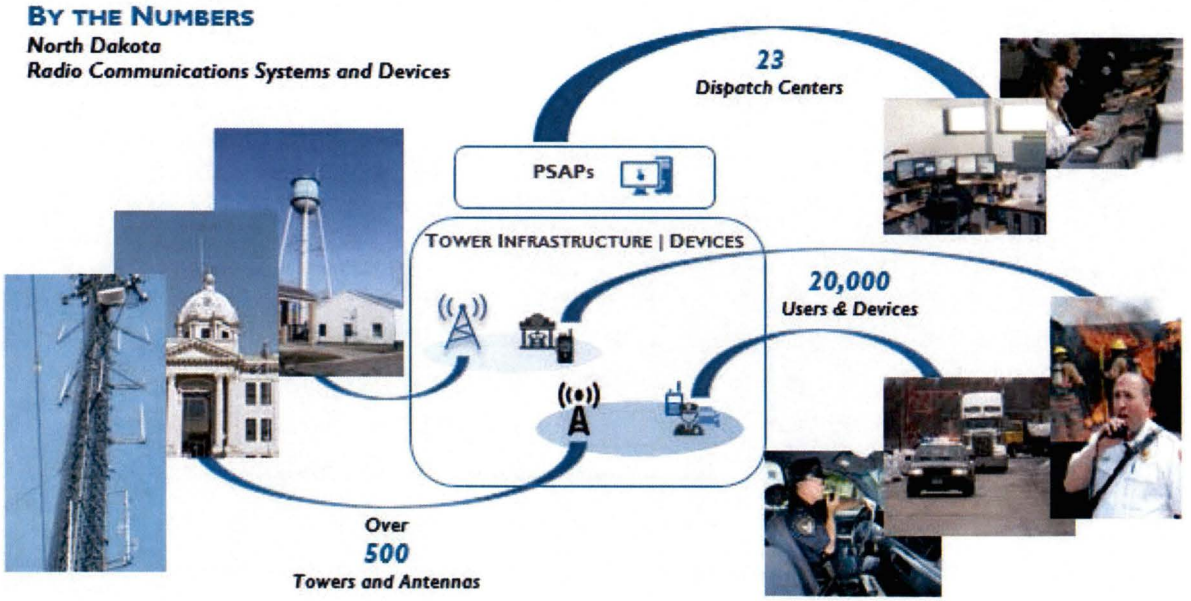
Attribute	Baseline Operational Needs
 Radio Coverage	▪ Equal or Better overall coverage than current systems ("Coverage Equivalence") ▪ 95% Mobile Radio coverage in each county ▪ Portable Radio service along roadways and in populated areas ▪ Reliable in-building coverage in dense areas of the State
 Features | Maintenance	▪ Capacity and individual agency communications enhancements ▪ Interoperability capabilities inter-county and inter-state ▪ Fire and Emergency Medical Services (EMS) paging systems support ▪ PSAP (9-1-1 call center) applications integration capability

[23] These counties were also less likely to support the concept of SIRN.

	▪ Network features capability support[24] ▪ Reliable and timely maintenance and issue resolution
GOVERNANCE | FINANCE	▪ Collaborative and equitable decision process ▪ Financially and operationally sustainable ▪ Significant State funding allocation

COMMUNICATIONS SYSTEMS OVERVIEW AND CONSTRAINTS

Approximately 85% of the County and Municipal public safety and public service entities[25] in the State of North Dakota operate **myriad independent, localized land mobile radio systems and dispatch centers** as their primary solution for mission critical voice and paging communications. The State Radio system – a statewide system managed and operated by DES and DOT – serves as the primary solution for the remaining State and local agencies, and provides as a secondary interoperable solution for multi-county response requirements. Collectively, these systems are essential communications tools for 130 law enforcement agencies, 175 public and private EMS departments, 385 volunteer fire departments, and dozens of public works and highways departments across the State, supporting almost 20,000 devices. Most networks are additionally interfaced to multiple supplementary applications such as computer-aided dispatch (CAD) systems, fire station alerting systems and over 4,500 two-way paging devices. [26]



[24] "Support" refers to the ability of SIRN 20/20 to latently support agency or county specific features. These features may not be initially delivered; however, SIRN 20/20 would originally be designed to accommodate them and they may be funded by agency requiring the feature.

[25] Public service agencies including public works, transportation departments, and public schools many of which play critical functions in the overall incident response and mitigation structure

[26] See Tower, Subscriber and Miscellaneous Equipment Databases and corresponding Current System Assessment for further details on the status of current state and local systems.

Limitations and Constraints

This section details key constraints, limitations and inefficiencies of existing state and local systems based on direct stakeholder input as well as independent technical analyses anchored on an extensive data collection and site survey effort. In general, the systems data collection effort was an integral component of the Study – essential in quantifying the totality of systems in the State, assessing their current strengths and weaknesses, and identifying suitable assets in the design of SIRN 20/20.

Abundance and Duplication of Systems: While there has been general guidance from the state on standards and technologies, most local entities – counties and municipalities – have independently deployed a large ecosystem of disparate systems and equipment to meet their unique geographic and operational needs. Over a period of 40 years, this extensive ecosystem of local disparate systems has grown to comprise hundreds of public and private infrastructure elements. Within some counties, the county sheriff, incorporated cities, fire departments, schools and public works agencies may all operate small localized independent networks comprised of a single or several base station towers. Collectively, these networks likely provide the requisite level of radio coverage in most of the State; however, a given agency typically only has access to their subset of sites which may not be sufficient.[27]

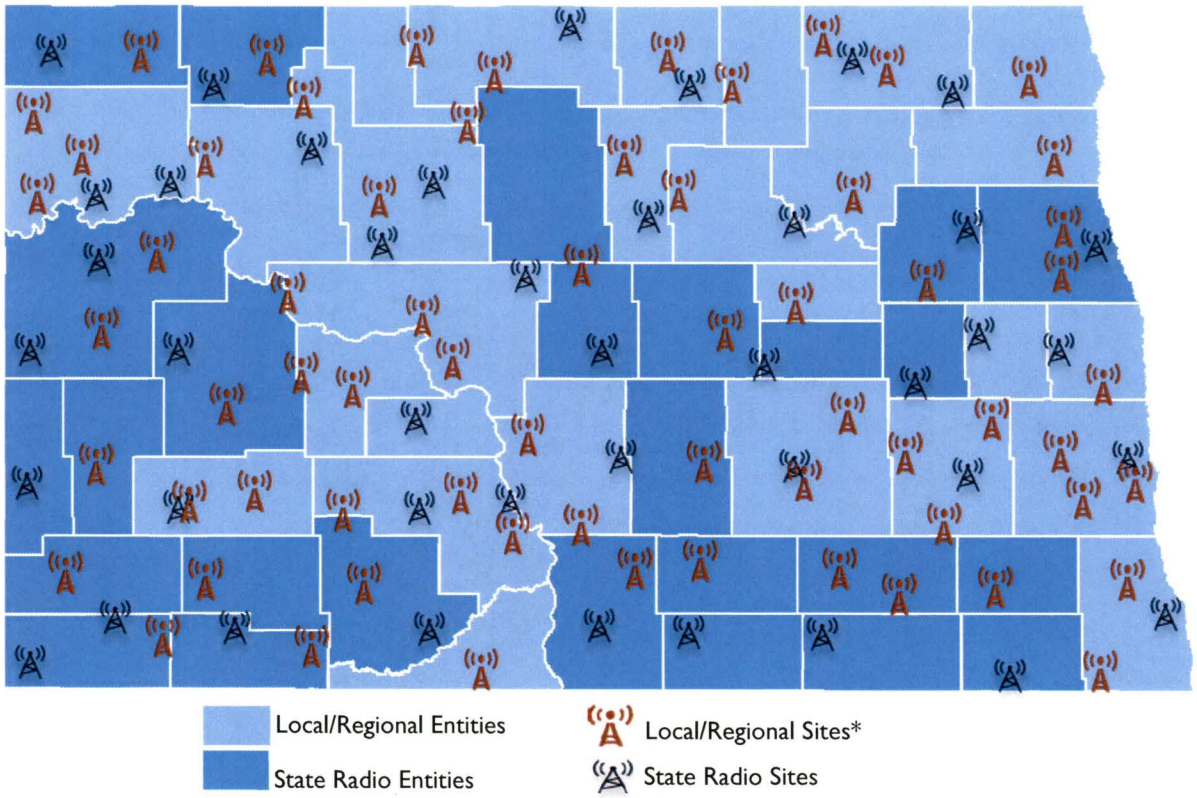


*Illustration of local sites; actual quantity exceeds 450 transmit locations

Figure 9: Conceptual Illustration of State and Local Towers

This practice has been perpetuated for many reasons, including varied funding streams and constraints and establishment of appropriate policies and procedures. It is worth noting that many of these small networks have also been cost-effective; they are less expensive from an individual agency's perspective than the

[27] See *North Dakota Statewide Radio Systems Assessment and Evolution Study* (2015) and Supplemental Document *11.4 SIRN 20/20 Survey and Needs Assessments Findings Summary* for further discussion on coverage gaps.

modern technologies being proposed under SIRN 20/20. However, while potentially cost-effective individually, this approach has led to a proliferation of numerous small networks which, in many cases, duplicate services potentially at great overall cost, and importantly, adds a layer of operational complexity in supporting seamless communications, sustainment and interoperability.

An illustration of this ecosystem of sites is depicted in Figure 9. Creating an efficient and integrated system is a key attribute of SIRN 20/20; as discussed later in this report, the total number of "radio sites", and the associated capital and operational costs, would be significantly reduced under the SIRN 20/20 architecture. These systems are the basis for the future – SIRN 20/20 would be largely anchored on existing infrastructure, thereby leveraging past investments and enabling an accelerated deployment.

Systems' End of Life: The age and sophistication of these systems varies based upon the counties' population, operational needs and funding capabilities. However, as previously noted, a majority of these systems are anchored on legacy technologies and are thus facing vendor obsolescence. Independent replacement of these disparate networks at the local level with new but similar legacy technologies, while possible, limits the efficiencies and operational benefits of an evolutionary migration.[28]

Inefficient Frequency Use: The abundance of disparate systems requires a significant number of radio channels or frequencies – a scare public resource – to support the communications needs of hundreds of agencies. Some counties do share radio channels among different disciplines satisfactorily; however, in many cases such shared channels cause nuisance communications in which different agencies with varying functions have to listen to each other's communications.

Intensive Manual Operations: The legacy technologies underlying all existing systems lack basic modern capabilities such as user registration and mobility management. To overcome these limitations, both dispatch personnel and first-responders have to constantly be aware of and announce their location with respect to a communications tower, changing channels as they move about their jurisdiction (or from tower to tower). This approach, in conjunction with the abundance of disparate systems, can compromise safety.

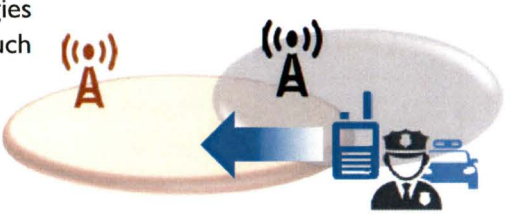


Figure 10: Lack of Mobility Management

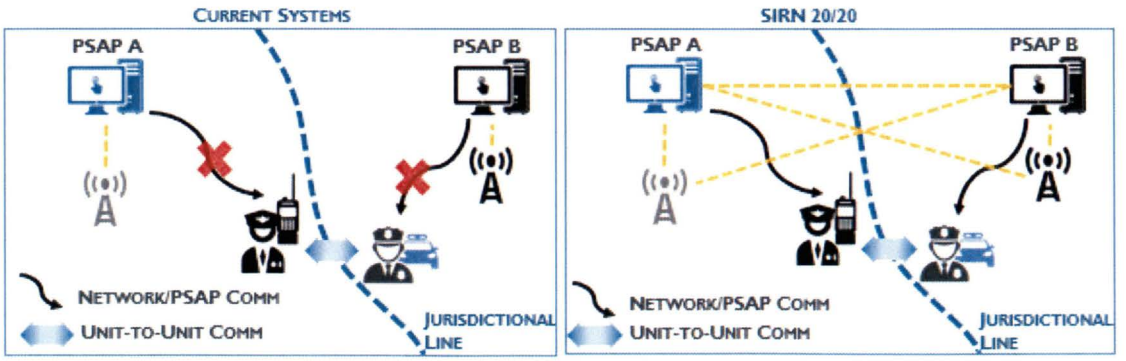


Figure 11: Current Disparate Systems in comparison to SIRN 20/20

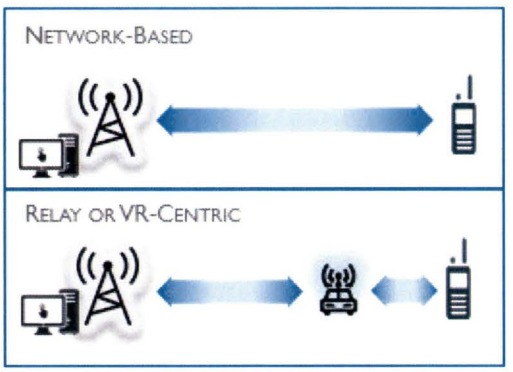
Interoperable Communications Constraints: Because the current ecosystem of disparate systems is not networked and lacks mobility management, mutual aid communications among users from different systems is challenging. Mutual aid communications are typically conducted via a single repeated or a set of

[28] As previously noted, the market for these legacy technology systems is also diminishing.

"off-network" or "unit-to-unit" channels (referred to as Bank 5[29]); under this configuration, first responders in the field lose access to their home PSAP or dispatchers. PSAPs are a critical element of the overall first response structure; dispatchers are responsible for overseeing field personnel, managing and distributing critical resources and information. Loss of contact with a home PSAP puts first responders in the field at risk, particularly if an emergency arises, and support personnel need to be dispatched. Under the proposed SIRN 20/20 solution, all users in the field as well as PSAPs would be connected and be able to maintain communications among all personnel (See Figure 11).

Disparate Conventional Systems: Existing State and Local systems are based on conventional technologies, which require dedicated frequencies to support two-way communications. This legacy technology, coupled with the scenario depicted in Figure 11, limits the ability to exploit all available radio sites due to restricted access or radio programming limitations and impedes communications.

Coverage Issues and Reliance on Vehicular Repeaters: Coverage is the most important attribute of a radio system. Despite the large number of radio towers, because a given user group only has access to their agency's subset of the overall infrastructure, many field users experience coverage gaps in the State. Vehicle mounted relays – commonly referred to as Vehicular Repeaters (VR) – are widely used to extend the range of networks for portable device communications. While a cost effective means of filling network gaps, overreliance on VRs has many technical and operational constraints, namely, it does not extend all system features to the portable, and requires the users to be within the vicinity of the vehicle (See figure). As first responders come to expect the ability to use a portable (or handheld) communications device freely rather than the decades-old approach of "radioing in" from a vehicle-mounted mobile device, it becomes important to deliver service directly from the network, rather than relying on local area VR extensions. Many surveyed stakeholders noted their dissatisfaction with overreliance on VRs.



Voice and Paging User Devices: Subscriber devices consist of nearly 20,000 land mobile radios and some 4,500 pagers that have a range of capabilities and ages as varied as the networks on which they operate. Ironically, because radios were acquired *reactively* in compliance to federal directives, thousands of devices were purchased at list prices, at times with technologies or features that were beyond the capabilities of the operating legacy networks. The integrated and holistic approach envisioned by SIRN 20/20 aims to leverage a portion of these radios[30], but also is intended to use a more *proactive* approach that exploits the marketplace and aligns device capabilities with that of the network.

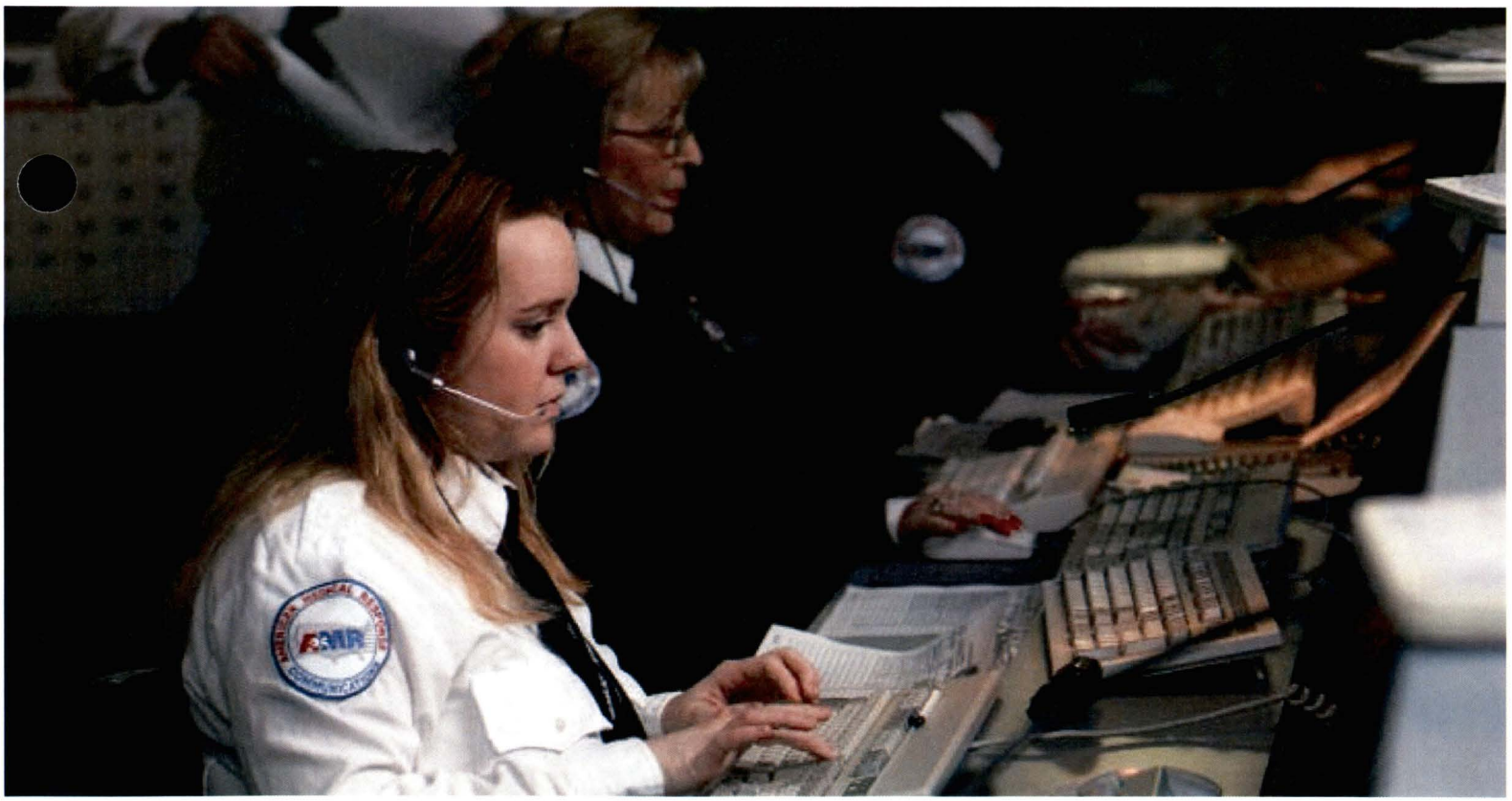
WHY TACKLE THIS ISSUE NOW?

A confluence of several events and circumstances have resulted in an earnest consideration of a holistic land mobile radio systems evolution in North Dakota at this juncture in time. As detailed above, the large ecosystem of disparate systems assembled over the past few decades are based on legacy technologies that provide limited functionality, at diminishing serviceable lifespans, many of which will no longer be supported by their manufacturers. Concurrently, over this timeframe, as the state's population increase has led to a rise in public safety incidents and activities, first-responders operational needs, procedures,

[29] Bank 5 are a set of radio-to-radio frequencies used on a regional or statewide basis for multi-jurisdictional use.
[30] About 2,000 of the most recently purchased radios can be upgraded for use on SIRN; some portion of an additional 4,900 devices could operate on SIRN via an upgrade but are already reaching their serviceable lifespans.

federal regulations and overall technology expectations have also evolved to embrace more robust and modern technologies. Further, federal government grants upon which many North Dakota counties have relied over the past decade have also begun to dwindle. Over the past decade, there has been general recognition by the radio network users that the current radio networks are not delivering the required level of reliability, performance and interoperability. In response to these issues, the State Interoperability Executive Committee (SIEC)[31] sponsored the North Dakota Statewide Radio Systems Assessment and Evolution Study[32] that proposed to the 64th State Legislature a conceptual statewide network to consolidate and evolve the myriad of legacy public safety radio systems.

The SIRN 20/20 solution is conceived as a holistic and integrated evolution of the State and Local communications radio networks that tackles the key objectives – addressing the demand from population and emergency incident increase, enhancing interoperability and other prevailing first-responder safety expectations, and avoidance of technology obsolescence – in a cost-effective and timely manner. Delays in pursuing SIRN 20/20 will likely sustain the status quo of independent and/or incremental improvements primarily by populous cities and counties that are facing *urgent end-of-life issues* and have been awaiting State guidance. Such an approach will likely not be cost-effective, could reduce participation, and perpetuate the patchwork of networks, which in turn limits operational interoperability and the prospect of well-conceived and sustainable solutions with long-term benefits.



[31] The SIEC is the governing oversight committee responsible for advancing voice and data interoperability for North Dakota and is composed of local and state executive representatives from law enforcement, fire, EMS, emergency services, 9-1-1, transportation, and other first responder disciplines.

[32] "North Dakota Statewide Radio Systems Assessment and Evolution Study" (Dec. 15, 2014).

PROPOSED SOLUTIONS FRAMEWORK/OVERVIEW

The 64th State Legislature charged the North Dakota Information Technology Department (ITD) in collaboration with the SIEC to assess the "feasibility and desirability" of implementing a modern, statewide, interoperable mission-critical voice communications capability. A comprehensive feasibility assessment of an integrated statewide solution entails a range of technical, financial, and programmatic elements, each of which have to be carefully considered in outlining a feasible program. Based upon input from the public safety stakeholder community and a study of similar statewide programs, a comprehensive set of SIRN 20/20 recommendations covering the following major areas are provided in this Study:

SIRN 20/20 Technology and Implementation Plans: The proposed SIRN 20/20 solutions, from a technology standpoint, are designed to serve as the primary means of mission-critical voice and paging communications for all state, local, tribal and municipal agencies. To ensure maximum adoption and an efficient communications ecosystem, SIRN 20/20 aims to address the Baseline Needs put forth by the stakeholder community, provide a centralized management system, and integrate current and future radio systems while enabling federated control of local resources. Additionally, SIRN 20/20 is substantially anchored on existing public (State and Local) infrastructure to leverage all suitable investments in the future solution. This architecture requires local adopters who are willing to contribute their respective radio assets.[33] Multiple technical options are discussed and assessed against adoption and cost. Finally, prospective migration strategies and risks are presented.

SIRN 20/20 Costs and Funding Models: Estimated costs for SIRN 20/20 are presented. Sustainable funds to implement and operate SIRN 20/20 over its complete lifecycle of 12 – 15 years are essential for its durability and continued adoption. A variety of feasible capital and operational funding models and sources, and potential state and local cost-sharing structures are proposed for the State's consideration. Additionally, a well-researched set of potential revenue sources and funding initiatives are presented.

SIRN 20/20 Governance and Operations: A governance structure that is inclusive and representative of all state, urban, rural and tribal jurisdictions with adequate authority to facilitate decision-making is proposed. The governance structure, similar to the technical architecture, is designed to generate and maintain both active participation and broad support for SIRN 20/20. These proposed recommendations, additionally, present a structure for SIRN 20/20 to create processes and policies that govern SIRN 20/20 deployment, operations, and sustainment.

The balance of this document provides the background and analysis, and proposes the corresponding framework for a successful SIRN 20/20.

SIRN 20/20 SYSTEM ARCHITECTURE SOLUTIONS AND OPTIONS

Systems Architecture Overview

As illustrated in Figure 12, SIRN 20/20 solutions are predicated on a statewide architecture that integrates all system infrastructure, dispatch centers, end-users devices and provides interfaces to supporting applications and other state systems into a **single** network of systems with a **common** core supporting regional and statewide day-to-day, mutual aid and large scale public safety and **mission critical**

[33] Prospective State-Local participation and asset sharing agreement templates have been tailored as part of this Study. Developed for use by the SIRN Operating Entity, these documents outlining the terms and conditions for mutually balanced state and local governments partnerships.

communications. Multiple solutions based on the APCO P25 Phase I standards and different frequency bands were evaluated against how suitably and cost-effectively they fulfill the underlying Baseline Needs.[34]

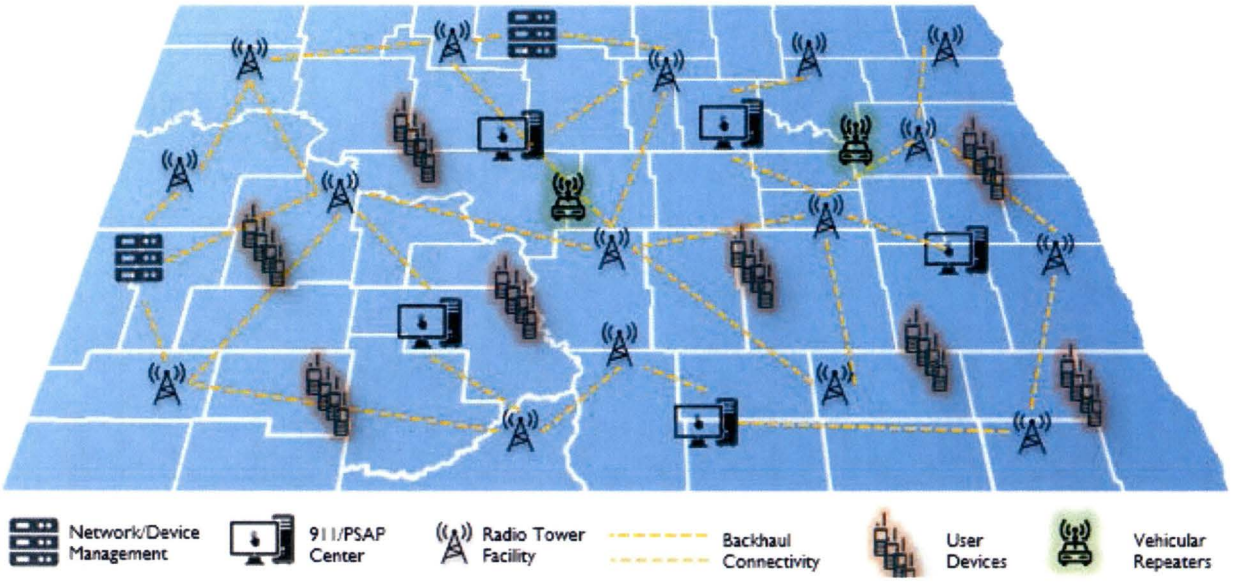


Figure 12: SIRN 20/20 Functional Elements

From an operational perspective, APCO P25 trunked systems which employ redundant controllers or systems management cores interfaced with all radio sites and dispatch centers (Figure 13) deliver have several key additional capabilities including caller ID display, automated radio mobility management, user prioritization, wide area roaming, enhanced interoperability, dispatching features. These elements enhance the user experience, increase network reliability, improve radio communications quality, and ultimately create a safer emergency communications and response environment for the responder and the supported public community. The proposed SIRN 20/20 architecture provides the following benefits to the State's public safety community:

- Supports multi-agency, multi-jurisdiction interoperable communications anywhere within the state for all mutual aid network end users
- Enables efficient shared use of the VHF spectrum while providing dedicated "talkpaths" to user agencies
- Facilitates, through centralized system switching, effective federated operation and local control of channel resources, while eliminating the need for human intervention and potential human error
- Enables the shared use of radio towers across jurisdictional lines based upon mutually established priority access schemes, thereby, significantly reducing the requirement, and associated costs of operating dozens of disparate radio networks
- Supports the ability for any approved user to access any PSAP statewide enabling redundant dispatching capabilities
- Supports automated mobility management of field users and dispatchers alike enabling them to roam over a wide area without the need to change frequencies
- Simplifies management of radio users profiles, device provisioning and network operations

[34] See Supplemental Document 11.1 SIRN 20/20 Architecture, Implementation and Migration Plans Overview for further description on architectures, underlying objectives and system benefits.

- Supports preset or spontaneous multi-function or group calls to address the mutual aid response at hand
- Automatically registers and monitors end user devices providing network operators, dispatchers and managers information on who is utilizing the network
- Supports interoperable connectivity and roaming capability with other neighboring states' systems
- Increases system reliability by assigning any available channel to any approved user in the event of partial equipment failure
- Supports the ability to centralize or create redundant systems for other PSAP functions such as CAD, logging recorders, call taking systems

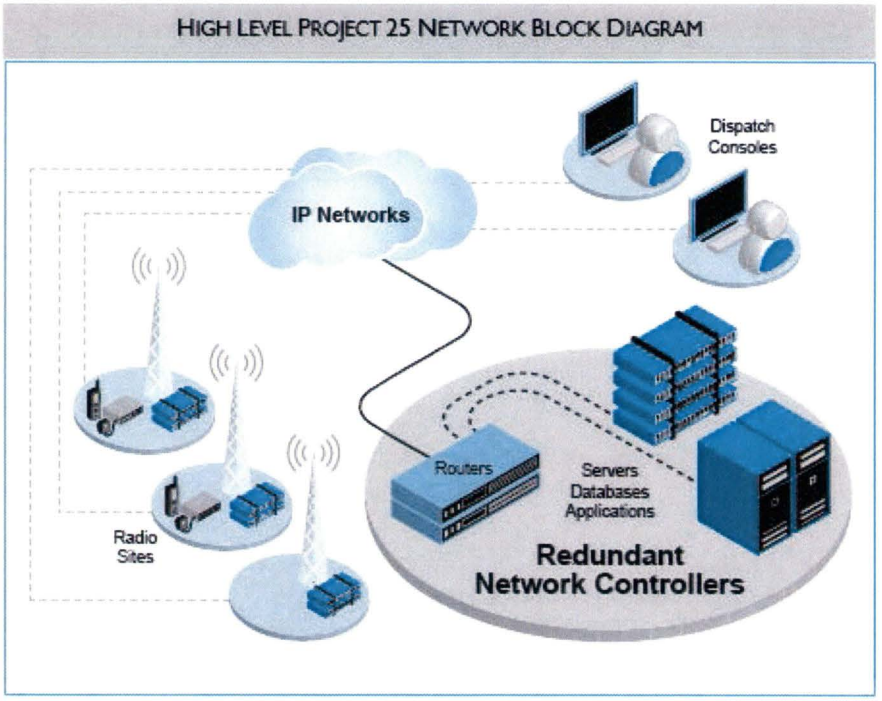


Figure 13: High Level Architectural Block Diagram

This report discusses three options each of which address the Baseline Needs to varying degrees. Other solutions found to be prohibitively expensive or substantially failed to meet the Baseline Needs are not presented.

A key technical difference between these options is whether they employ Network Based or Relay Centric Service Delivery models in meeting the Coverage Equivalence Requirement. Coverage equivalence – a SIRN 20/20 baseline need that at a minimum maintains the service area of the dozens of disparate local radio systems – is a principal baseline requirement driving SIRN 20/20 design and architecture development. In addition to maintaining the composite service level delivered by the large ecosystem of existing transmitters, these requirements also aim to provide sufficient portable service in populated areas and along roadways, as well as in-door service in dense areas. These requirements could be met by either providing sufficient network-based service in which portable devices

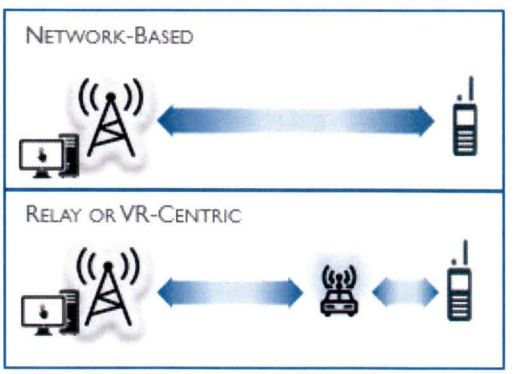


Figure 14: Network Based or Relay Centric Service

access the network and dispatch centers directly, or provide *basic* network service with portable devices primarily relying on vehicle-mounted relays to access the radio network and associated dispatch centers (see Figure 14).[35]

While the vehicular relay-centric options could in effect address the coverage equivalence and portable service requirements, overreliance on vehicular repeaters does not provide a seamless, graceful and full-featured solution, and importantly, would not be a holistic and integrated solution. Namely, VR-Centric models access require proximity to a vehicle and have limited capabilities particularly during large incidents. Such architectures would, additionally, be similar to State Radio's current system in that they supply baseline mobile radio service and would likely require the continued use of local networks required to provide paging and other network-based service needs. Most populous counties already would have better overall service from their local networks, many of which deliver service to portable radios over the network, and will likely opt to retain their current systems, even though these networks have other performance gaps and limitations.

SIRN 20/20 Options Overview			
Options Description	**1. Hybrid VHF Portable* Network**** ▪ Network VHF mobile coverage statewide ▪ *Network-Based* VHF Portable service[36] ▪ 800 MHz Network Portable service in "Urban Areas"	**2. Hybrid VHF Mobile Network**** ▪ Network VHF mobile coverage statewide ▪ VR-Centric VHF Portable service ▪ 800 MHz Network Portable service in "Urban Areas"	**3. 800 MHz Mobile Network** ▪ Network 800 MHz mobile coverage statewide ▪ *VR-Centric* 800 MHz Portable service ▪ 800 MHz Network Portable service in "Urban Areas"
Fixed Infrastructure Cost	High	Low	High
Vehicular Repeater Cost	Low	High	High
Subscriber Device Cost	Medium	Highest	High
Overall Cost*	Equivalent	Equivalent	Equivalent
Fulfills Baseline Requirements	Adequately	Partially	Partially
Leverage of Existing Assets	Yes	Yes	Some
Requires Local Asset Contribution	Yes – Significant State and Local Assets	Yes – Primarily State Assets	Limited
Implementation Timeline	Long	Medium	Long
Implementation Risk	Medium	Low	Low-Medium
Ease of Operations and Sustainment	Equivalent	Equivalent	Equivalent

[35] For instance when a law enforcement officer leaves a vehicle to respond to a traffic stop.

[36] This proposed SIRN architecture does include some VR usage to increase overall network reliability in very remote areas of the State.

*Portable refers to a network that fulfills service levels as defined in the Baseline Requirements, and not a ubiquitous statewide on-street portable service
**Hybrid VHF Networks include 800 MHz Layers in Urban Areas.

Table 6: SIRN 20/20 Solutions Options Evaluation Matrix

Table 6 summarizes these options and provides corresponding analyses. Based on the discussion above and the assessment in Table 6, Network-Based VHF System (Option 1) is considered the most optimal solution that fulfills the Baseline Requirements. From a financial perspective, the variance of the overall costs among these options are within 10% making the other options less favorable.[37] In fact, the costs within each option alone can have a range of more than 10% depending on the final architecture, leverage of existing assets, adoption rates, and acquisition strategies. Moreover, it is likely that some counties would need to maintain certain local network enhancements for paging and other needs, possibly making the overall cost of the VR-Centric Solutions higher.

Hybrid Spectrum - Urban Area 800 MHz Layers

Typically, the use of a consistent frequency band across the entire geography of the state is more financially and operationally favorable; however, 800 MHz spectrum is proposed in six Urban Areas under each of these options for the following reasons[38]:

- Delivers critical in-building portable coverage to major urban areas
- Supports better interoperability with their counterparts for cities along the Minnesota border
- Vacates a portion of the VHF frequencies for incorporation into the VHF SIRN 20/20 layer
- Provides upgradeable VHF radios to be provisioned for use by Rural/County users
- Supports a pilot phase as the legacy VHF networks and 800 MHz networks can co-exist to further validate SIRN 20/20

User Base Options – Public Service Agencies

A more notable consideration with prominent financial implications is the extent to which local public service agencies[39] are included in the SIRN 20/20 solution. Of the estimated 20,000 devices that can operate on SIRN 20/20, 6,500 are distributed across public service agencies including public works, transportation departments, and public schools. While the proposed SIRN 20/20 infrastructure itself could support the added capacity with limited incremental changes, a significant portion of the 6,400 public service radios would have to be replaced to operate on SIRN 20/20. Many of these public service agencies are recognized by the surveyed North Dakota public safety stakeholders, as well as by the Federal Emergency Management Agency and other incident response and mitigation organizations, as directly or indirectly serving key emergency service functions (ESF). Transportation infrastructure recovery, repair, restoration, and safety; disaster housing, human services, mass casualty response; hazardous material clean and environmental safety are all integral elements of the incident response and management structure. Similarly, school facilities and school buses, for various reasons, can be considered as part of this structure.

[37] Overall costs represent *ALL* fixed and mobile elements of SIRN. While these costs are within 10%, there is greater variation when considering individual elements. These SIRN element-specific cost variations may be perceived differently depending on which entity (State or Local) the cost-sharing decisions identify as responsible for funding a given element of SIRN.

[38] A hybrid solution requires the use of more costly "dual band" radios by some entities to maintain interoperability. The Study considered a statewide portable 800 MHz option which was one of the options eliminated early due to substantially higher overall cost.

[39] Note: DOT devices – totaling 1,000 – are grouped with public safety agency quantities.

Category	Function	Mobile	Portable
County and Municipalities	Fire/EMS	2,738	5,099
	Law Enforcement	1,320	2,260
	Other Public Safety Agencies	273	436
	Public Service Agencies	***5,258***	***1,075***
County and Municipalities Total		9,589	8,870
State	Law Enforcement	258	270
	Transportation	800	150
State Agencies Total		1,058	420
	Grand Total	10,647	9,290

Table 7: Estimated SIRN 20/20 Radio Quantities[40]

The Study focused mainly on public safety agencies; however, many of the public service agencies, particularly in rural areas where they essentially rely on, or share the public safety frequencies, will naturally have to migrate with their first responder counterparts. They additionally have assets that could be contributed, or needed, in SIRN 20/20. A widely-adopted solution is ultimately more cost-efficient for the community as whole; inclusion of individual agencies can be gradual and be based on a similar feasibility study of these agencies. It should be noted that some portion of the 4,900 aging, but SIRN 20/20 capable radios, could be upgraded for use for public service agencies, further reducing their cost of inclusion.

SIRN 20/20 Coverage and Infrastructure Plan

The proposed SIRN 20/20 coverage plan underlies multiple technical and operational Baseline Requirements[41] established by the stakeholder community as critical for adoption and sustaining mission-critical service. These objectives were established through extensive outreach and individual or group working sessions with over 45 counties. To achieve these objectives cost-effectively, the design process examined solutions that maintain or improve user experience, addresses critical coverage gaps, and provide sufficient portable coverage in large municipalities, while maximizing the leverage of existing assets and consolidating duplicative services.[42],[43]. Figure 15 illustrates the predicted SIRN 20/20 VHF portable level service in the State anchored on existing radio and water towers, 85% of which are currently owned or leased by public safety and related government entities.

[40] Over 13,000 devices were directly documented through the data collection efforts; the values presented include device projections for non-surveyed or unresponsive agencies. Projections were based on a variety of factors including general populations, agency sizes, and government employee census data.

[41] See Baseline Operational Requirements for coverage design requirements.

[42] The Coverage Plan is based on an extensive data collection and site selection process used to categorize and evaluate assets using myriad technical and financial factors such availability of tower space, generators, equipment shelters, fiber optic cable,

[43] See Supplemental Document 11.2 SIRN 20/20 VHF Coverage Plan and Design for a complete discussion.

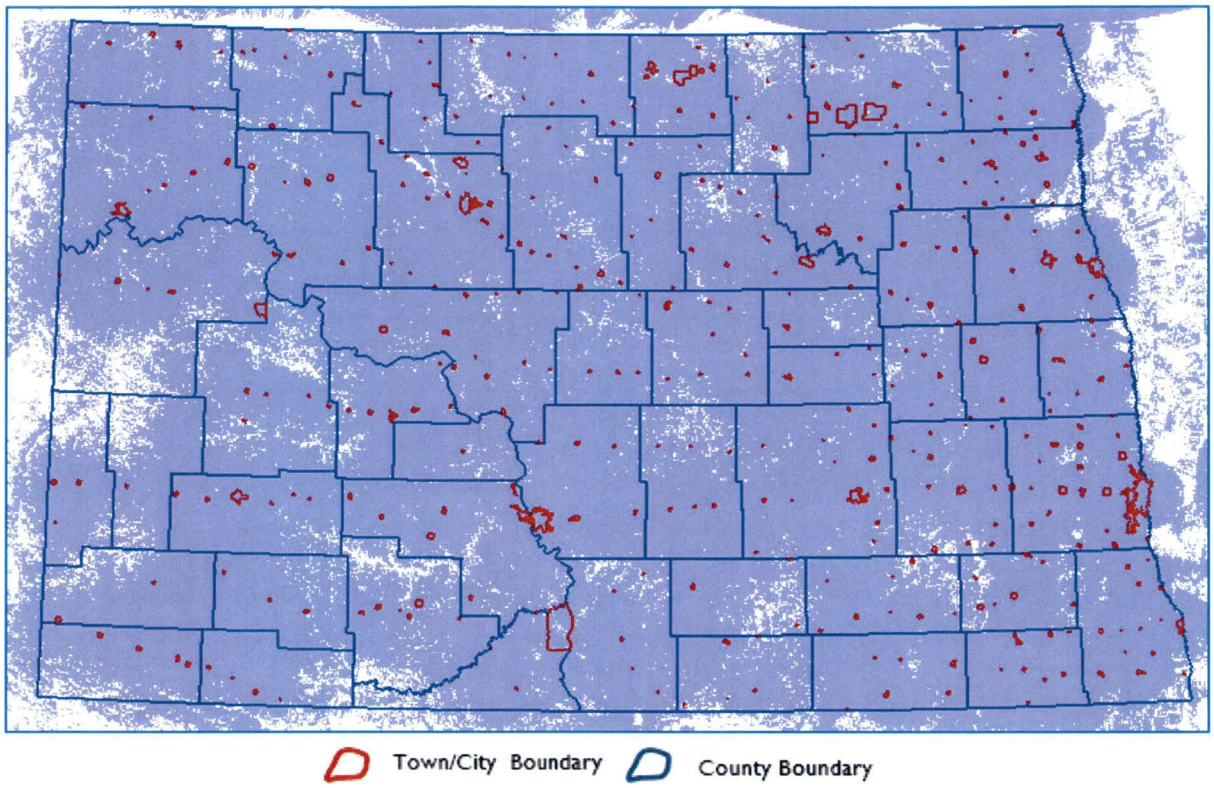


Figure 15: Predicted On-Street VHF Portable Service

Although the extent of SIRN 20/20 coverage is a key factor influencing county-level adoption, it is also a significant contributor to overall deployment costs. Therefore, the design methodology[44] followed a conservative, yet meticulous process, to strike a balance between ensuring a satisfactory and highly adopted network, and delivering a cost-efficient solution. Further refinement of the SIRN 20/20 coverage plan could be achieved through additional consultation with local stakeholders and modifying certain technical configurations. *However, it is recommended that the proposed network costs are budgeted under the current Baseline Requirements to ensure the overall objectives can be met.*

Very High Frequency (VHF) Spectrum Availability, Risks and Opportunities

The SIRN 20/20 coverage plan is anchored on the VHF spectrum to deliver a cost-effective[45] solution that maximizes the reuse of suitable legacy investments on VHF equipment; however, ensuring the availability of adequate radio spectrum – a challenging task – is of significant importance to the success of SIRN 20/20. A comprehensive frequency survey and planning process was undertaken to evaluate the viability of a VHF SIRN 20/20 solution during this Study culminating in a preliminary frequency strategy[46] for the proposed SIRN 20/20 constellation of radio sites. VHF frequency planning is an inherently iterative process subject to various "known" and "possible" technical and regulatory variables. Additionally, because the VHF

[44] See Supplemental Document 11.2 SIRN Coverage Design and Plan for a complete discussion.
[45] Radio signals in the VHF spectrum have superior range in the absence of obstructions making them ideal for flat rural geographies.
[46] The frequency plan includes an average of five frequency pairs per site to support the projected capacity. See Supplemental Document SIRN 20/20 Very High Frequency (VHF) Survey and Plan for the preliminary VHF by Site assignment plan and further discussion.

spectrum is currently in widespread use by public safety entities, a well-conceived transition process that considers their daily operational needs is required. The proposed frequency plan, therefore, accounts for these "known" variables and outlines several strategies for addressing various possible scenarios.

Listed below are key considerations, and risks, and a list of mitigation strategies that could be pursued.

- **On-Site Incumbent Transmitters:** SIRN 20/20, across various aspects, is predicated on *broad and cooperative participation by* local entities that contribute some of their assets, including radio frequencies. SIRN 20/20, as proposed, would be deployed at existing towers and hence has to attempt to coexist with incumbent frequencies. While the proposed SIRN 20/20 Frequency Plan prioritizes the use of non-incumbent frequencies, due to radio interference, at many sites *some portion* of local frequencies will either have to be incorporated into SIRN 20/20 or redeployed elsewhere.[47] Freeing up these VHF frequencies was a key reason for migrating the Urban Areas to a different spectrum (800 MHz). It should be noted, assuming SIRN 20/20 is fully deployed and adopted within a given jurisdiction, there is limited need for incumbent frequencies at that location. Therefore, on-site transmitters pose a challenge during the transition period; some user groups may have to share a channel or operate at reduced capacity during this period to accommodate the proposed build-out phases. Figure 16 illustrates possible scenarios for co-existence with incumbent and SIRN 20/20 channels during the transitional and final stages of SIRN 20/20.

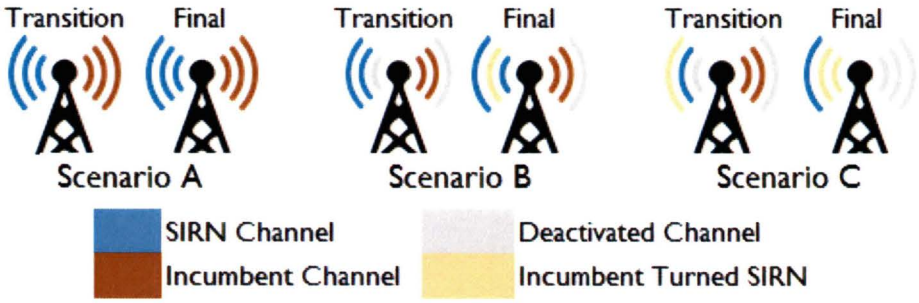


Figure 16: Transitional and Final VHF Channel Examples

- **Coordination with Canada and other entities:** Licensing radio frequencies requires coordination with multiple organizations including public and private sector entities, within the State, neighboring States and, importantly, with Canada. While the proposed plan accounts for many of the pertinent factors, other variables may surface during subsequent iterations of frequency plans or the licensing process. Notably, the pool of frequencies used by Canadian federal authorities is currently not known and can only be addressed just prior to SIRN 20/20 build out.

Various summarizes potential strategies summarized below (Table 8) are available to overcome challenges that may be encountered in deploying a VHF based SIRN 20/20 solution.

[47] Preliminary frequency plan accommodates for co-existence with all State Radio Frequencies at all State Radio sites, while other sites may require incorporation or elimination of incumbent channels as illustrated in Figure 15.

Possible VHF Spectrum Mitigation Strategies and Next Steps
▪ Consult with locals on migration strategies and operational/capacity constraints ▪ Reduce channel counts at sites within low population counties (3 voice/paging sufficient) ▪ Enumerate public safety pool VHF channels to be vacated by 800 MHz Urban Areas ▪ Configure some SIRN 20/20 sites as Receive Only ▪ Use nearby private tower in lieu of government tower to avoid on-site transmitters ▪ Prioritize Canadian commercial frequencies (not federal) and incumbent North Dakota licenses within Line A[48] ▪ Use 7.5 kHz channels possible* ▪ Expand use of Industrial and Business channels (allocate contingency for purchasing frequencies)* **Additional Costs/Coordination Efforts*

Table 8: Possible VHF Spectrum Mitigation Strategies and Next Steps

Other Ancillary and Neighboring State Systems

As illustrated in Figure 17, SIRN 20/20 would be interfaced to, or would incorporate, several key dispatch center systems and applications to achieve a truly interoperable and integrated statewide solution. Eventually, SIRN 20/20 may also be integrated with neighboring states standardized systems to advance inter-State communications.

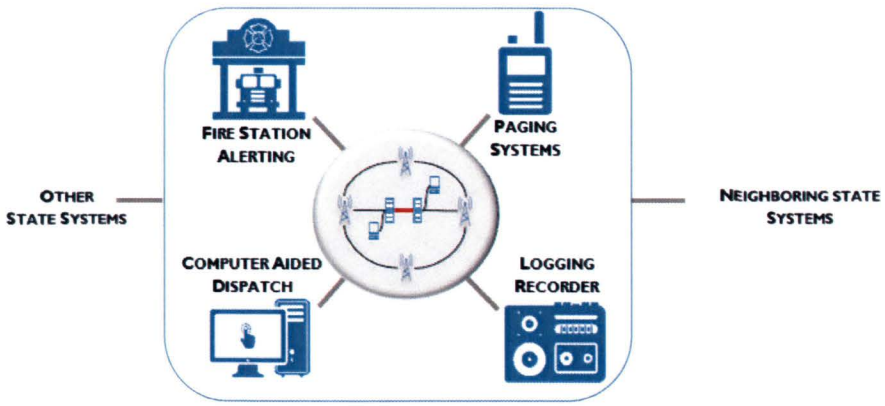


Figure 17: Ancillary SIRN 20/20 Systems

SIRN 20/20 Implementation & Migration Approaches

SIRN 20/20 Program Development

Implementation of statewide public safety systems are a significant undertaking requiring a well-conceived and coordinated effort among the vendor community, the SIRN 20/20 Operating Entity, the governing

[48] Line A is 70-mile band from the US-Canada Border; licensing frequencies within this band requires a lengthy coordination process with Canadian Authorities.

bodies, and the large community of first and second responders.[49] A robust plan, coupled with the requisite funding stream and *responsible decision-making*, is critical for the timely implementation of SIRN 20/20. With several current systems facing their end-of-life dates in 2018, a condensed timeline is essential for SIRN 20/20's success, as delays could cause attrition of local support, place aging systems at risk, reduce the ability to leverage assets, and lessen the overall likelihood of a truly integrated solution.

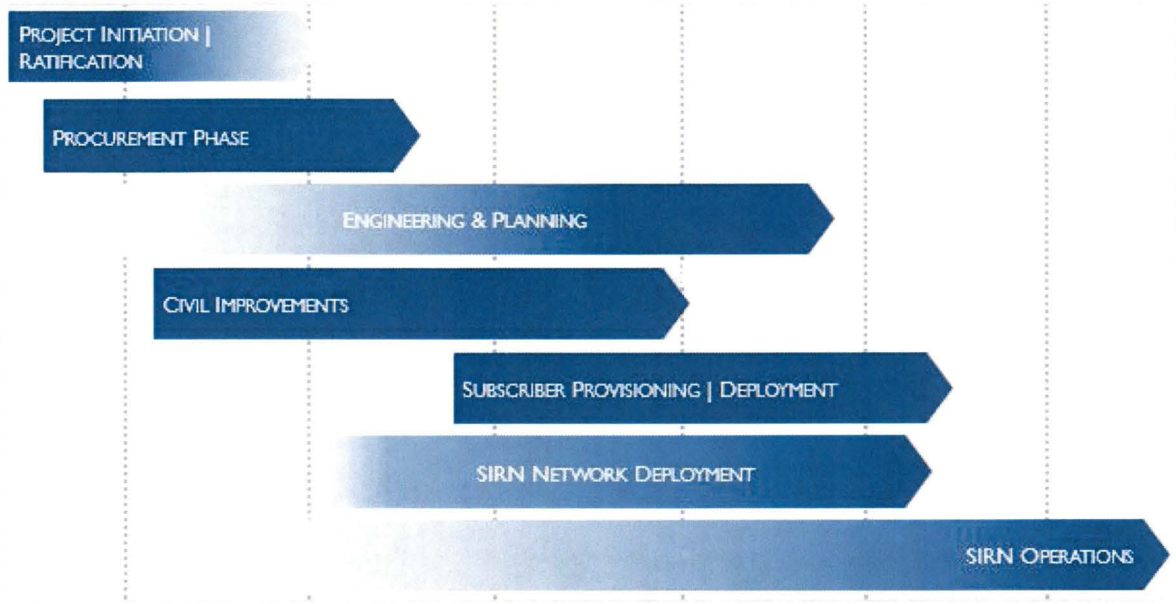


Figure 18: Proposed SIRN 20/20 Implementation Timeline and Phases

A proposed set of programmatic and logical steps are illustrated Figure 18 based on a five year SIRN 20/20 implementation plan; actual schedules depend on the outcome of the 65th State Legislature.[50] If the State elects to pursue SIRN 20/20, a concerted *program development and initiation* effort that builds on the activities performed under this Study is essential in the immediate term. These efforts would include formalizing the SIRN 20/20 governance, SIRN 20/20 operating entity and a corresponding program office tasked with establishing direction for the ensuing program phases and advancing outreach efforts and requirements development.

Migration Plans

Various technical and operational attributes influence SIRN 20/20 deployment and prospective user agency migrations. A possible sequence of activities which considers aging PSAP equipment and frees up technical resources is depicted below. At a high level, and as illustrated in Figure 19, the proposed process includes the following sequence: (1) replacement of all PSAP equipment, (2) deployment of 800 MHz layers in urban areas, followed by (3) regional deployments of the SIRN 20/20 VHF layer. Replacement of legacy radio consoles averts the risk of operating mission-critical PSAP equipment that will no longer be supported by their manufacturers, while migrating the urban areas to 800 MHz first is essential for freeing up the VHF frequencies and *User Radios* for use in SIRN 20/20.

[49] See Supplemental Document 11.5 SIRN 20/20 Governance Recommendations for further discussion on the SIRN Operating or Managing Entity.

[50] The State may elect to do certain preparatory activities such as civil site assessments in parallel or prior to the procurement process in order to reduce the overall deployment timeline.

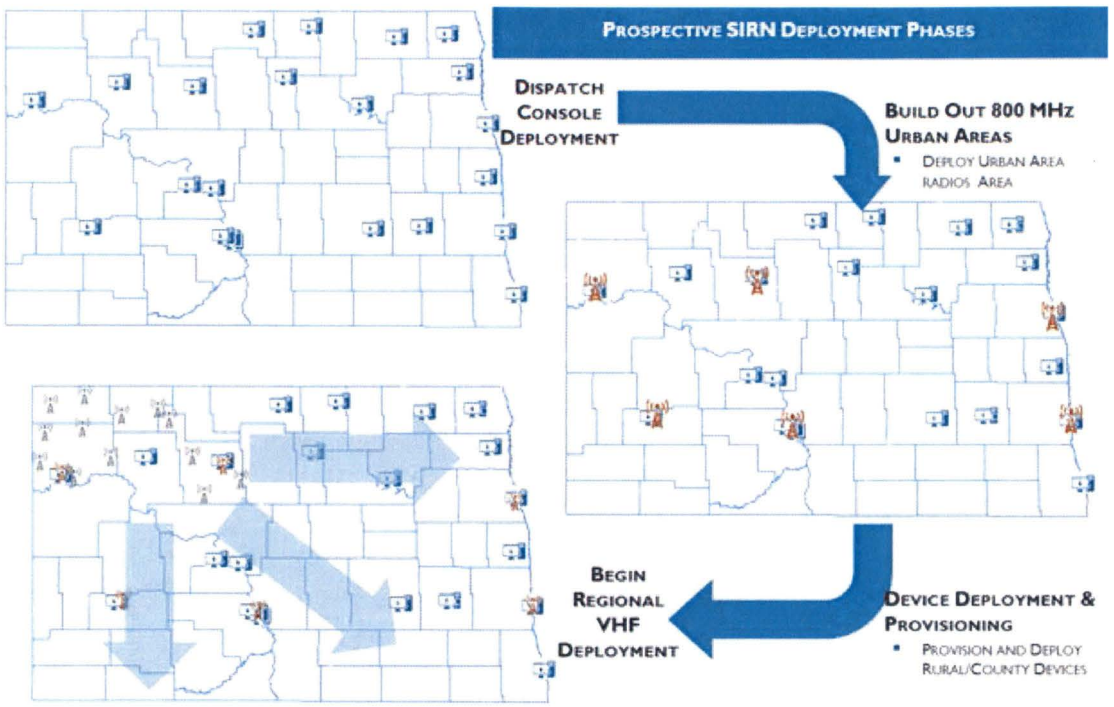


Figure 19: SIRN 20/20 Legacy Radio Network Migration Strategy

With over 900 public safety and public service agencies, and comprising 20,000 user devices planned for SIRN 20/20, a device migration plan that considers the daily and tactical needs of the user community will require a concerted effort by all affected stakeholders. During the transition, end-user devices have to be provisioned to support legacy and new networks, while maintaining interoperable communications during the migration to SIRN 20/20. Ensuring that radios can communicate over both networks during this period may require multiple rounds of radio programming. Migration on such a scale is challenging and may be disruptive to the end user community; however, a concerted and transparent effort, coupled with a well-structured plan, can yield a seamless transition.

Operations and Sustainment

A comprehensive maintenance, operations, and sustainment plan is essential for a large government technology solution, particularly one that supports a mission-critical purpose for dozens of jurisdictions. The SIRN 20/20 Operations and Maintenance (O & M) structure would be comprised of internal or third-party staff, or a combination thereof depending on the acquisition strategy and IT management philosophy the State pursues. The O & M structure (See Figure 20) would be comprised of the different functions below under the leadership of the overall SIRN 20/20 governance and operation structure *discussed in this report*. Because both user base and infrastructure are spread across an area of 70,000 square miles, the SIRN 20/20 O & M would require regional distribution of staff and resources. The O & M plan could build upon the current ecosystem of radio service vendors, as well as, various State agencies, such as DES, DOT and ITD which already have the resources and operational expertise in providing PSAP, IT and Maintenance services to the State Radio system.[51] As identified in the timeline (above), this structure may be implemented gradually, but has to be finalized prior to complete transition to SIRN 20/20. Finally, in

[51] Estimated annual operational costs presented in this report include a combination of insourced and outsourced rates.

addition to staff, the sustainment of SIRN 20/20 also includes the requisite vendor support, technology refresh and software licensing fees to sustain the network.

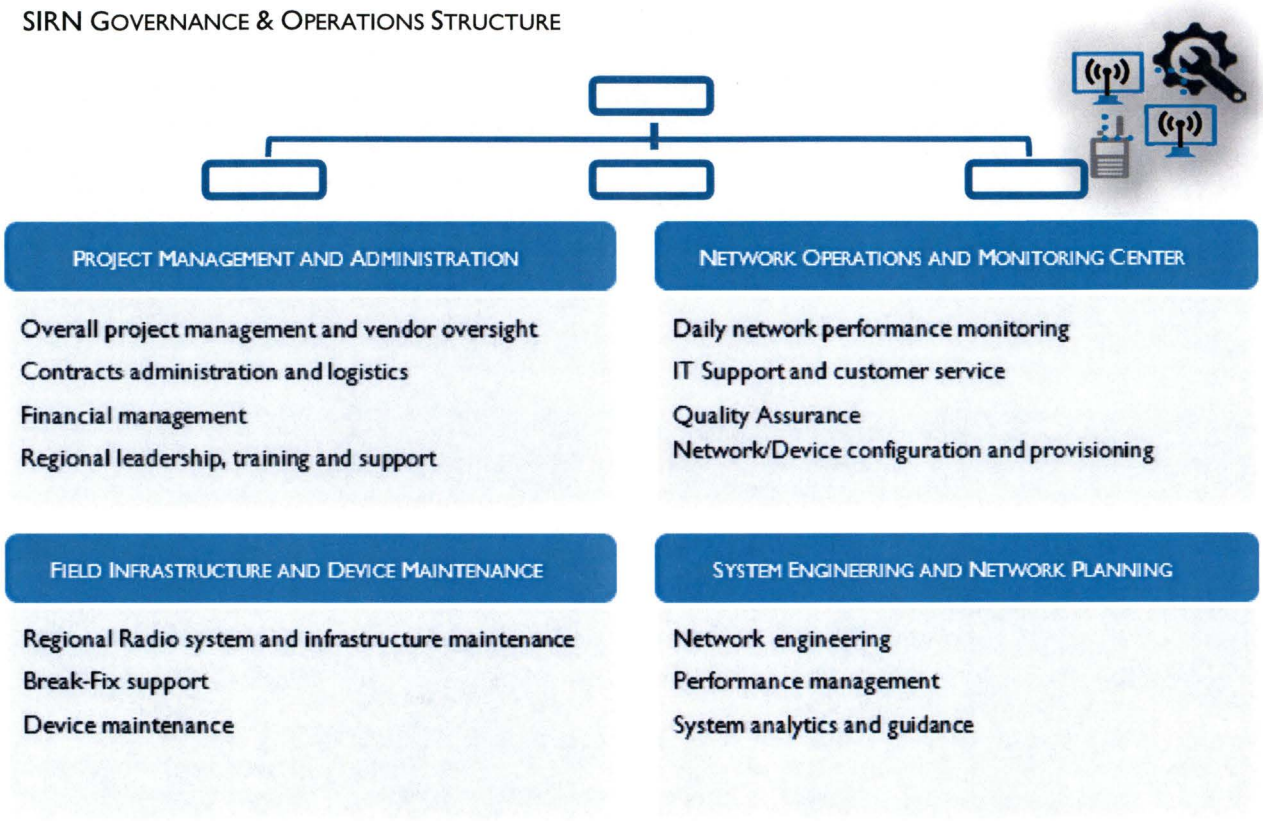


Figure 20: Management and Operations Organization Staff

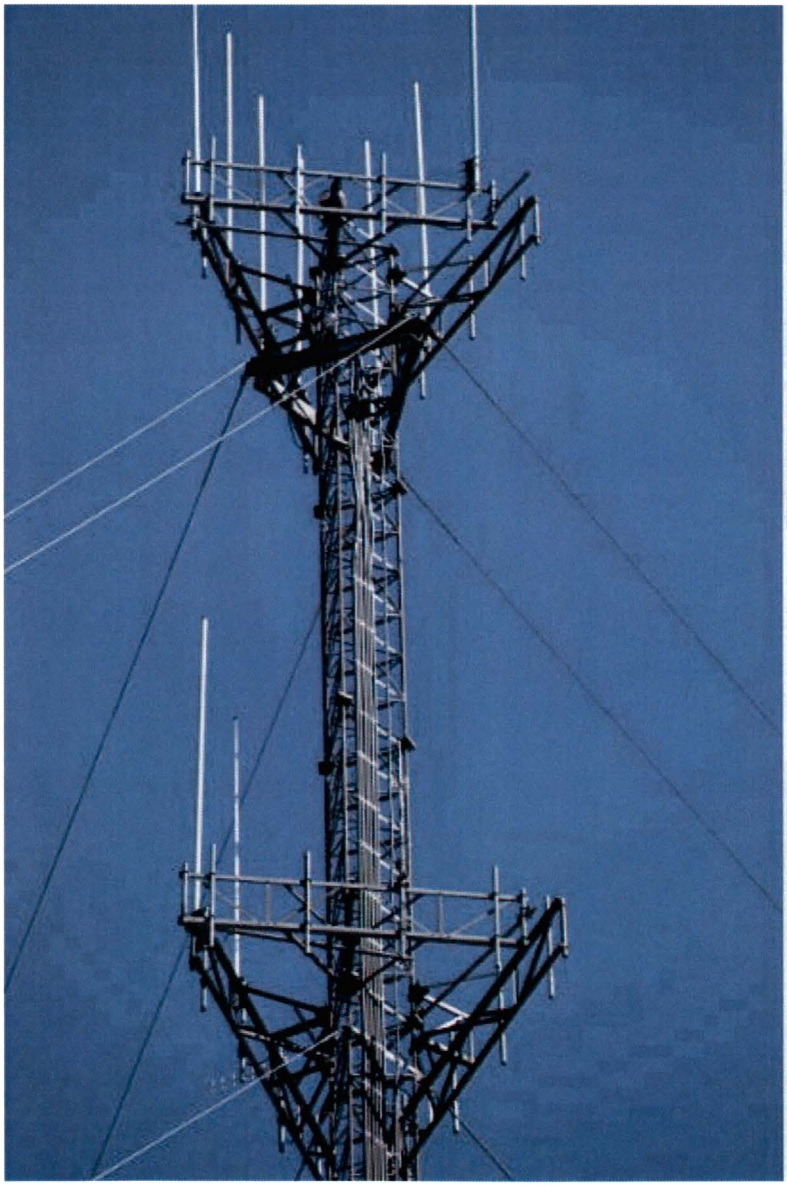
SIRN 20/20 ACQUISITION STRATEGIES

The acquisition of SIRN 20/20 goods and services should follow a broad and modular competitive approach that exploits the market space for each of the SIRN 20/20 elements. Table 9 illustrates the various capital and operational SIRN 20/20 elements, each of which have a different market space. While there are only a handful of companies that can provide large LMR systems, there are several firms that could provide subscriber devices, integration services, and maintenance services. SIRN 20/20 procurement would be organized to maximize the market space for each of those elements allowing vendors to bid on one or all of these elements. While the larger market space for subscriber devices is expected to generate greater competition, a single vendor may be incentivized to offer significant discounts for collectively providing all goods and services. Upon receipt of vendor information, the State could also elect to insource some aspects of SIRN 20/20 for which such an approach is feasible and cost-effective.[52] SIRN 20/20 may also enter into an Indefinite Delivery Indefinite Quantity (IDIQ) supply schedule with approved vendors and equipment to facilitate the long term individual entity procurement needs of local governments that may have varying subscriber device requirements.

[52] Estimated annual operational costs assume a combination of insourced and outsourced rates; ITD, DES and DOT all have the personnel and capabilities on which to build an O & M structure.

CAPITAL	OPERATIONAL
▪ State and Overall Program Management ▪ Land Mobile Radio Network and Systems ▪ Subscriber - Mobiles, Portables, Vehicular Repeaters ▪ Civil Infrastructure & Services ▪ PSAP Centers Equipment and Interfaces ▪ Professional Engineering and Design Services	▪ Network Operations/Monitoring Center ▪ Vendor Management & Administration ▪ Engineering and Management ▪ Software Maintenance & Licensing ▪ Tower and Site Services ▪ Mobile Radio Network Field Maintenance ▪ Subscriber Device Maintenance

Table 9: Capital and operational SIRN 20/20 Goods and Services



SIRN 20/20 FINANCIAL OVERVIEW

A detailed financial analysis was conducted as part of the SIRN 20/20 Feasibility Study including:

- **Estimated capital and operational costs**: Comprehensive evaluation of the overall costs for the deployment and sustainment of SIRN 20/20 over its expected lifecycle based on a variety of factors such as implementation timeline, ability to leverage existing assets, inclusiveness of local entities, and acquisition strategies.

- **Funding Sources**: Comprehensive research of potential funding sources and revenue streams focusing on sources that have had success for adoption in other states for similar public safety initiatives.

- **Cost-Sharing Models**: Proposal for potential State and local cost-sharing models for different functional elements of SIRN 20/20 based on stakeholder input and research on other state models.

ESTIMATED CAPITAL AND OPERATIONAL COSTS

A variety of architectural and operational models were evaluated in developing the total lifecycle cost of a SIRN 20/20 solution that addressed the key objectives outlined by the stakeholder community. As previously noted, the core objective is a holistic solution that integrates all system infrastructure, dispatch centers, end-users devices and, additionally, provides interfaces to supporting applications and other state systems with the goal of replacing all governmental land mobile radio systems in the State. Table 10 summarizes the estimated capital and operational costs for the prospective solutions that address this objective. These estimates are based upon extensive market research, detailed assessment of existing state and local assets, and incorporate a variety of prudent assumptions on the suitability of these existing assets, level of adoption or inclusiveness, the competitiveness of the market place.

Total lifecycle capital and operational expenditures (CapEx and OpEx) for each of the three network options[53] presented in *Systems Architecture Overview* were itemized to include the components illustrated below.

CAPITAL	OPERATIONAL
▪ Program Initiation and State Management Costs ▪ Land Mobile Radio Network and Systems ▪ Subscriber Costs – Mobiles, Portables, Vehicular Repeaters ▪ Civil Infrastructure & Services ▪ PSAP Centers Equipment and Interfaces ▪ Professional Services – Engineering, Design, Optimization	▪ Software Maintenance & Licensing ▪ Tower and Site Services ▪ Mobile Radio Network Field Maintenance ▪ Subscriber Device Maintenance ▪ Engineering and Management ▪ Network Operations/Monitoring Center ▪ Project/Vendor Management & Administration ▪ Annual Recurring Expenses

[53] See Supplemental Document 11.8 SIRN 20/20 Cost Estimates Development and Revenue Models for complete discussion on the SIRN cost development.

Capital costs estimates depict ranges identifying:

- ***Subscriber Upgrade Savings***: Potential savings from upgrading recently purchased radios[54]
- ***Public Service Inclusiveness***: Spectrum of costs contingent on the level of adoption by public service entities (w/PSER – with all public service agencies, w/o PSER – without any of the State's public service agencies)

Further, the operational cost estimates separately identify annual costs currently incurred by various State agencies for the operation of existing State Radio and related systems. Under the proposed SIRN 20/20 plan, these funds could be redirected to the operation and sustainment of SIRN 20/20. It should be noted that counties and municipalities are also currently devoting funds and resources to sustain their respective systems; the costs for these have not been estimated, however, because the proposed SIRN 20/20 plan would serve all local needs, these funds could be incorporated into SIRN 20/20 operations.

SIRN 20/20 ESTIMATED LIFECYCLE OWNERSHIP COSTS (IN MILLIONS)						
Options Description	**1. Hybrid VHF Portable* Network**		**2. Hybrid VHF Mobile Network**		**3. 800 MHz Mobile Network**	
	w/ PSER	w/o PSER	w/ PSER	w/o PSER	w/ PSER	w/o PSER
Fixed Networks/ Subsystems	90.3	87.0	63.0	60.6	93.0	89.6
Local Elements – PSAPs, FSA, BDA[55]	12.4	12.4	12.4	12.4	12.4	12.4
Infrastructure Total	**102.7**	**99.4**	**75.4**	**73.0**	**105.4**	**102.0**
Subscriber Devices Total	**74.4**	**57.2**	**90.6**	**74.2**	**80.4**	**64.6**
Subscriber Upgrade (Savings)	(4.9)	(4.4)	(3.3)	(2.6)	N/A	N/A[56]
TOTAL w/ All New Subscribers	**177.1**	**156.6**	**166.0**	**147.2**	**185.8**	**166.6**
TOTAL Subscriber Upgrade Savings	**172.2**	**152.1**	**162.7**	**144.6**	**N/A**	**N/A**
Total OpEx	**12.91**	**12.29**	**9.97**	**9.60**	**13.02**	**12.37**
"Current OpEx Transfer"	3.06	3.06	2.78	2.76	3.06	3.06
"New OpEx"	9.85	9.23	7.19	6.85	9.96	9.31

Table 10: SIRN 20/20 20/20 Estimated Lifecycle Ownership Costs

[54] As noted earlier (User Base Options – Public Service Agencies), some portion of the 4,900 aging but SIRN capable radios could be upgraded for use for certain public service agencies yielding an additional saving of $ 3 - $ 5 M.

[55] It is expected Under Options 2 and 3 that additional investments at the local level for network relays and in-building solutions may be required to support paging and enhanced portable service where a VR is not present.

[56] All subscriber devices have to be replaced under these options.

Operational costs represent total, or "all in" estimated costs for the operations and maintenance (O & M) of all fixed infrastructure and subscriber devices. Two elements are itemized:

- ***Current OpEx Transfer***: Costs currently incurred include operational costs by DES, DOT, and ITD on State Radio and other State elements, which would be incorporated into or transferred directly to SIRN 20/20 operations.
- ***New OpEx***: Identifies estimated additional OpEx beyond current State agency expenditures on radio communications. It should be noted that local entities have annual expenditures that are not enumerated; therefore, from a holistic, statewide perspective, some portion of these estimates may also fall under "Current OpEx Transfer"

As previously discussed *in SIRN 20/20 Systems Architecture and Options*, a network-based hybrid VHF-800 MHz SIRN 20/20 that includes all public safety and public service entities is recommended as the optimal solution. The estimated capital outlay for this solution, depicted *as Option 1*, ranges from $ 152 – 177 M depending on the savings from upgraded radios and the level of adoption by public service agencies. It is recommended that the State and local stakeholders plan for this holistic budget of $ 175 M; savings that come to bear due to variations in assumptions, most of which will be solidified within the first biennium, could be eliminated from the budget in subsequent biennia, or may be diverted to address other elements.

Finally, Land Mobile Radio subscribers may range in cost from $ 1,500 to over $ 8,000; a variety of assumptions were made in selecting device tiers commensurate with a given agency's operational needs.

Annual Capital Phase Outlay

Ensuring a funding allocation stream that aligns with the proposed implementation plan is essential to a successful program. It is recommended that the State establish a mechanism for fully funding SIRN 20/20 before embarking on the project to prevent costly delays and attrition at the local level. SIRN 20/20 Capital outlay may be expended per a milestone-based model or, if the State pursues a financed or bonded option, the costs may be distributed equally over the systems lifecycle. Potential annual capital and lifecycle outlays, based upon the Hybrid VHF Portable Model (All New Subscribers), are provided below to support the State and its partners in developing annual funding streams to fund SIRN 20/20.

POTENTIAL MILESTONE-BASED ANNUAL OUTLAYS (IN MILLIONS)						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**
Annual Capital Outlay	11.4	52.7	43.4	41.7	28.0	
Annual Capital Outlay (With 2.5% Inflation)	11.4	54.0	45.6	44.9	30.9	
Operational Cost Ramp Up* (With 2.5% Inflation)			3.4	7.0	10.8	
Annual 2017 - 2021 Combined Outlay (With Inflation)	11.4	54.0	49.0	52.0	41.7	
Post 2021 Operational Costs						11.1

* Inflation adjusted value of the $9.8 M in "New" operational estimated costs. The table depicts an equal ramp up of operational capabilities over a three year period starting in Year 3, resulting in a fully staffed and funded O & M structure by Year 5.

Table 11: Potential Milestone-Based Annual Outlays

After complete deployment,[57] the expected lifecycle of SIRN 20/20 is approximately 12 – 15 years. Therefore, including the implementation the overall lifecycle of the system is approximately 18 years. Assuming a financed or bonded capital outlay, over a 15 year period at 3%, the following total capital and operational costs are estimated.

Financed or Bonded Annual CapEx and OpEx (in Millions)			
	Capital Cost	Operational Cost	TOTAL Per Annum
2017	$14.84		$14.84
2018	$14.84		$14.84
2019	$14.84	$3.43	$18.27
2020	$14.84	$7.04	$21.87
2021	$14.84	$10.82	$25.65
2022	$14.84	$11.09	$25.92
2023	$14.84	$11.36	$26.20
2024	$14.84	$11.65	$26.48
2025	$14.84	$11.94	$26.78
2026	$14.84	$12.24	$27.07
2027	$14.84	$12.54	$27.38
2028	$14.84	$12.86	$27.69
2029	$14.84	$13.18	$28.01
2030	$14.84	$13.51	$28.34
2031	$14.84	$13.85	$28.68
2032		$14.19	$14.19
2033		$14.55	$14.55
2034		$14.91	$14.91

Table 12: Financed or Bonded Annual CapEx and OpEx (in Millions)

FUNDING SOURCES AND REVENUE MODELS

Securing and sustaining the required resources to fund an IT infrastructure program of this scope and size is no easy feat – even for a system that serves a vital lifeline for the preservation of life and property. The Study explored and analyzed various funding source options that may be available in the State of North Dakota, and that have also historically proven to be successful and viable in other states. This section

[57] It should be noted that the SIRN 20/20 would be deployed and activated in phases; therefore certain regions would begin using the system during the estimated five-year deployment timeline.

proposes potential revenue sources, discusses the prospects of gaining support for these sources at the State and local levels, and estimates annual funds that each could generate. While the discussion centers on sources available to the State, certain strategies may also be used by local entities depending on the final state and local cost-sharing models discussed within this report.

What Have Other States Done?

Public safety systems are typically funded by a mixture of general funds, new self-funding initiatives such as taxes and fees, 911 fees, or federal and state grants structured as recurring revenue sources or one-time capital infusions. As with any large infrastructure project, governments may employ financing options[58] or municipal bonds to remunerate the one-time cash infusion. A detailed account of state expenditures is challenging because published values typically do not consider the totality of costs as they are spreads over multiple government levels and decades. Nonetheless, over the past two decades, most states have expended hundreds of millions to over a billion dollars to fund their public safety systems and devices. A few examples of strategies other states have pursued are summarized below.

State	State Funds	Federal Grants	User Fees	911 Fees	PPP[59]	Motor Vehicle	Bonds	Criminal Offense
Connecticut	✓	✓		✓				
Florida					✓	✓		✓
Illinois			✓		✓			
Indiana						✓		
Iowa				✓	✓			
Kansas	✓		✓					
Minnesota				✓			✓	
Mississippi	✓							✓
Ohio		✓	✓				✓	
Oklahoma	✓	✓				✓		
South Carolina			✓		✓			
West Virginia	✓			✓				

Table 13: Funding Strategies Used by Other States

Potential Self-Funded Sources

The Study explored various new funding initiatives focusing on taxes, fees and fines where:

- nominal increases could generate significant monies and face limited constituent opposition
- current State rates are significantly lower than comparable states in the nation
- no increases have been assessed for a long periods (e.g., 1993 for tobacco taxes)
- the intended source is specifically related to a public safety function (e.g., 911 fees, traffic citations)

[58] All major LMR system vendors contacted as part of this study offer vendor financing plans up to $ 500 M with interest rates for credit worthy municipalities would be between 2.5-3.0%.

[59] Typically, public/private partnership between state government, local governments, power utilities, and a prime radio system vendor(s) which may build, operate and manage the infrastructure, generating fees directly from the users.

- the affected persons are typically tourists and other transient population, not North Dakotans (e.g., hotel fees)

Table 14 summarizes these sources and proposes potential rate changes based on comparative analysis of other states in the region. The expected annual revenue as a percentage of the amortized annual lifecycle costs of the proposed SIRN 20/20 solution is also depicted; the State may elect to combine one or more of these areas or focus on a single area to fund the majority of SIRN 20/20. As illustrated in the table, nominal increases in certain excise and sales taxes can produce large annual sums and perhaps even be raised further to supplement health initiatives. Tobacco taxes, for instance, rank 48th in the nation and have not been raised since 1993. Additionally, many law enforcement agencies have noted that the current traffic violation fees do not deter violators due to their extremely low levels.

Option	Proposed Changes and Estimated Annual Revenue	% SIRN 20/20 Cost[60]	Comments	Probability
Cigarette Tax Increase	▪ $0.25 Per Pack → $14 M ▪ $0.50 Per Pack → $28 M ▪ $1.00 Per Pack → $56 M	▪ 70 % ▪ 145% ▪ 290%	▪ ND tax is $0.44 per pack; 48th highest in US ▪ Tax rate not increased since 1993	Medium/ High
Hotel Lodging Tax	▪ $0.50 Per Night → $1.5 - 2.0 M ▪ $1.00 Per Night → $ 3 - 4.0 M	▪ 10% ▪ 20%	▪ Assumes no future increase in rooms	Low/ Medium
Traffic citation Increase	▪ Double → $ 3.5 M ▪ Triple → $7 M ▪ Quadruple → $10.5 M	▪ 18% ▪ 35% ▪ 55%	▪ ND citations average *2 to 10 times lower* than neighboring states for most traffic violations ▪ 2015 Citation revenues $3.5 M	Medium
Driver's License Fee	▪ $10 Increase → $5.2 M ▪ $15 Increase → $7.9 M	▪ 27% ▪ 42%	▪ 527, 541 licensed ND drivers in 2015	Low
Vehicle Registration Fee	▪ $10 Increase → $8.4 M ▪ $15 Increase → $12.7 M	▪ 45% ▪ 65%	▪ 845,109 vehicles registered in 2015	Medium
911 Fee	▪ Depends on County	▪	▪ Collected at the county level; capped at $ 1.50/line ▪ Allocate to Dispatch Equipment	Medium (for PSAP Only)
Gas Tax Increase	▪ 2.5c Per Gallon → $12 M ▪ 5 c Per Gallon → $24 M	▪ 65 % ▪ 125%	▪ 468,720,000 gallons of gasoline/diesel in 2014 ▪ $0.23 tax per gallon of gas ▪ 32nd highest in the US	Low/ Medium
Alcohol Tax Increase	▪ 10 c Per Gallon → $3.4 M ▪ 20 c per Gallon → $6.8 M	▪ 18% ▪ 36%	▪ Beer tax is $0.39 per gallon; 16th highest in US ▪ Wine tax is $1.06 per gallon; 18th highest in US	Low/ Medium

[60] As a percentage of the projected combined capital and operational costs of SIRN 20/20. As illustrated in the table, several sources could be used to cover a substantial percentage of SIRN 20/20; alternatively, certain proposed sources could cover the full amount.

			▪ Liquor tax is $4.66 per gallon; 30th highest in US	

Table 14: Potential Funding Sources and Estimated Annual Revenue

Federal Grants

While federal grants have been declining, the State has received an annual average of $ 3.5 M in State Homeland Security Programs over the past five years. These funds are allocated throughout the State for several public safety communications and emergency management purposes; however, with the consolidation of all state and local systems under the SIRN 20/20 plan, there may be an opportunity to allocate a portion of the SHSP funds to elements of SIRN 20/20 such as PSAP equipment.

911 Funds

North Dakota counties collect between $ 1.00 and $ 1.50 monthly per telephone line; some of these "911 fees" are used to fund dispatch center equipment and staff. The twenty four counties without 911 call-taking centers direct $ 0.44 to the State DES, which provides these services to those counties. While the study does not specifically propose the use of 911 fees to fund SIRN 20/20, as noted within the cost-sharing models, 911 center equipment is recommended to be funded at the local level. The 911 fees, at the current levels, or with minimal increases, could be used to cover the cost of some or all of the dispatch center equipment needed for SIRN 20/20 integration.

Natural Resources Revenue Outlook

The State's recent economic boom has been directly tied to the substantial increase in natural resources revenue. While there has been a notable decline over the past two years, as indicated in Table 15, the natural resources revenue over this "bust" time frame still exceed historical levels by a factor of five times. Due to this significant boom, the *State's Strategic Investment & Improvement Fund* and *Political Subdivision Allocation Fund* have allocations of $ 316 M and $ 92 M over the 2015 – 2017 biennium.[61] The State may elect to use a small fraction of these oil tax allocations to fund an important public safety cause in the near term.

Total Oil & Gas Tax Revenue (Biennial)					
'05-'07	'07-'09	'09-'11	'11-'13	'13-'15	'15-'17
$ 352 M	$ 799M	$ 1,500M	$ 4,680M	$ 6,430 M	$ 3,430 M

Table 15: Total Oil & Gas Tax Revenue (Biennial)

Gradually, as the cost of oil stabilizes, so too will the State's natural sources revenues and economic activity, in general. Crude oil costs have increased by two-fold in the first half of 2016; World Bank data projects average per barrel sustained costs of $ 60 by 2020, $ 85 by 2025.[62] As the economy begins to improve, other initiatives outlined in Table 14 such as hotel fees and gas taxes will yield higher revenues and may also be viable targets for increased rates. By and large, the level of potential revenues across the proposed sources suggest that it is possible to fund the bulk of the projected SIRN 20/20 costs without additionally encumbering the constituency. As discussed next, local entities also expect to have a stake in SIRN 20/20 and intend to allocate funds in accordance with their funding ability.

[61] State of North Dakota 2015-2017 Biennium Executive Budget
[62] World Bank Commodities Price Forecast (nominal US dollars), Released: January 20, 2016 <http://www.worldbank.org/content/dam/Worldbank/GEP/GEP2015a/Price_Forecast.pdf>

COST-SHARING MODELS

Local stakeholders have indicated that while the State should earmark the bulk of SIRN 20/20 funds, counties and municipalities should have a financial stake in SIRN 20/20. Cost has been identified as the most important barrier to adopting SIRN 20/20; in fact, many states have faced challenges in expanding their state systems into rural counties due to the higher cost of adoption. This slow adoption rate, among other reasons, has led to the perpetuation of disparate systems despite the existence of a statewide system. This section proposes possible state and local cost-sharing models that are based on survey feedback, are commensurate with local revenue stream, and are expected to gain support from local entities.

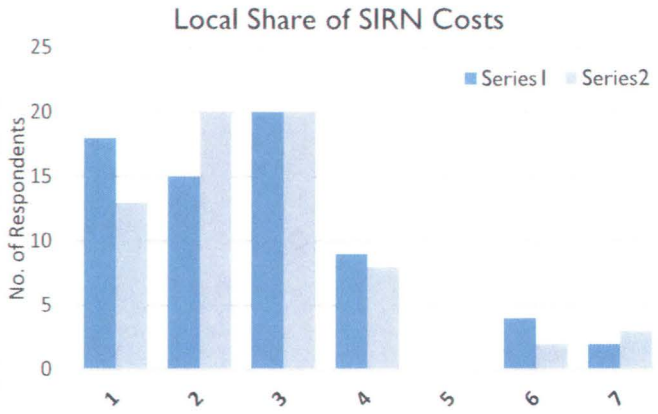
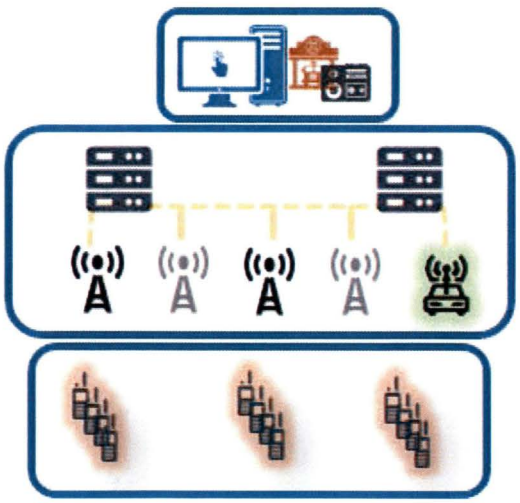


Figure 21: Local Share of SIRN Costs – County Survey

In order to establish a justifiable sharing model, SIRN 20/20 was divided into functional elements each of which would have a different distribution of costs between the State and local entities. These functional elements include:



PSAP and other Agency Specific Equipment: comprises dispatch consoles, interfaces to PSAP applications such as logging recorders, and SIRN expansion elements such as in-building coverage enhancements in Courthouses, and fire-station-altering systems

Central Systems and Infrastructure: comprises all infrastructure and centralized SIRN goods and services necessary to fulfill the baseline requirements

Subscriber Devices: All Portable, Mobile devices, further divided into Volunteer Fire Department (VFD) devices and all other agencies.

In general, the proposed cost-sharing models, summarized in Table 16, recommend that the State fund 80% of the capital and operational costs of the "central elements" and subscriber devices, and 100% of volunteer fire departments devices, while the remaining 20% of the costs are distributed across counties by population or device quantities. Under this approach, county governments would primarily cover 20% of the overall network and devices for law enforcement entities, career-based fire departments, and public service agencies, while volunteer agencies which typically are not associated with county government structure and have limited funds are fully funded by the State. Using a mixture of *population* and *device* quantities attempts to counter disproportionate subsidization of rural counties by urban entities while balancing an overall equitable structure. The ultimate cost distribution model would be structured by the SIRN 20/20 Governance discussed within this report.

System Elements	Proposed Share	Estimated Cost	County Share Range
Central Network Elements, Vehicular Repeaters	80% State 20% Local *By County Pop.*	$ 90.3 M	$ 20 k - $ 4 M
PSAP and Other Agency/Jurisdiction Specific Equipment	100% Agency/Jurisdiction	$ 12.4 M	Depends By PSAP or County*
Subscriber Devices *Volunteer Fire Departments*	100 % State	$ 23.5 M	
Subscriber Devices *All other agencies*	80% State 20% Local *By Device Quantity.**	$44.7 M*	$ 28 k - $ 1.2 M*
Central Network Elements – OpEx***	80% State 20% Local *By Device Quantity*	$8.85 M / year	$ 7.7 k - $ 240 k / year
Subscriber Devices – OpEx***	100% Agency/Jurisdiction	$1.0 M / year	
* Use of Support Fund where needed ** Includes DES PSAP Equipment (a State agency) *** Depicts only "New OpEx" Costs			

Table 16: Potential Cost-Sharing Models

Other Cost-Sharing Considerations

- **Local 911 fees:** Most surveyed entities stated that diverting 911 revenue to SIRN 20/20 would be a challenge as they're already earmarked for other functions. The cost-sharing model recommends that current 911 fees be used to cover the PSAP equipment at the 24 PSAPs currently using State Radio. Independent PSAPs are typically in more populous jurisdictions, many of which have already been planning to replace their consoles. Additionally, as previously noted, there is a potential to raise the 911 fees up to the currently maximum levels of $ 1.50 per telephone line.

- **Support Fund:** The cost-sharing model additionally introduces the concept of a Support Fund to support very sparsely populated areas with high per-capita radio quantities or other areas that may generally not be able to afford the cost of participation. This Fund may be administered as through grant funding or similar avenue.

- **Shared Asset Evaluation:** SIRN 20/20 is predicated on the contribution of assets from counties and municipalities. Some local entities, within higher than average in-kind or hardware contributed assets may want to adjust their financial contribution (e.g., lower than 20%) contingent on the

value of their assets being contributed; however, such an approach could over-complicate the overall cost-sharing models and should be addressed on a case-by-case basis.[63]

- **State Revenue Stream and SIRN 20/20 Timeline:** The previous section detailed various potential sources available to the State, some of which may yield sufficient funds to cover a higher proportion of the proposed State share. Based on further evaluations, the proposed governance body or the SIEC may elect to pursue different models that increase the State's share. In general, it is recommended that the State attempt to ease the funding burden, particularly on local entities. Financial barriers could delay the implementation of SIRN 20/20 jeopardizing the success of the program. The State (via the SIRN 20/20 Operating Entity) may elect to pay in advance for some counties and use a loan program.

[63] The Study has a comprehensive repository of these assets and could estimate the savings to SIRN these assets bring to bear.

SIRN 20/20 GOVERNANCE

CONSIDERATIONS AND RECOMMENDATIONS OVERVIEW

Central to the success of a statewide network is a governance framework that defines the shared ownership, operation and sustainment at all levels of government. A consolidated radio network would require even greater collaboration and present significant opportunities for State, Local and Tribal agencies to enhance interoperability and cross agency/jurisdiction response and mutual aid. The governance and decision-making structure underlie the consensus-based approach essential for all aspects of SIRN 20/20. This section summarizes the considerations in creating an equitable SIRN 20/20 governance and proposes a recommended composition and structure.[64] The recommendations draw on primary source document research as well as in-depth interviews with a wide variety of individuals with knowledge of and experience in public safety communications governance in North Dakota. The recommendations also draw on experience and knowledge of governance structures in other states.

The research and interviews produced a number of findings that led to the recommendations in the report. The major findings include:

Key Governance Interview Findings

- SIRN 20/20 will rely heavily on local jurisdictions for infrastructure as well as subscribers, so it will require deep and broad local support and buy-in.
- Achieving and maintaining such buy-in will require a SIRN 20/20 governance structure that is authoritative, balanced, and independent.
- Pronounced sensitivity exists in the North Dakota public safety communications community to differences between state- and local-level interests, as well as urban and rural interests.
- The SIEC is an existing statutory and generally well-received governance body for statewide public safety communications, but it possesses only advisory authority and lacks structural mechanisms to ensure both SIEC independence and an urban-rural balance in SIEC membership.
- To successfully address public safety communications interoperability in North Dakota, SIRN 20/20 must also drive interoperability at the local and regional levels, but the state possesses no governance mechanism to do so.

In light of these findings, the report recommends a number of actions to establish a successful governance structure for SIRN 20/20. The recommendations are forward-looking – although they were developed while the feasibility and desirability of deploying SIRN 20/20 was still under consideration (and thus the need for SIRN 20/20 governance was not yet confirmed), they are drafted as though the State has made the decision to proceed with the SIRN 20/20 initiative, including establishment of a SIRN 20/20 governance structure. The primary recommendations constitute modifications to SIEC capabilities and statutes, and specifically, the creation, within the SIEC, of a SIRN 20/20 sub-committee focusing on all SIRN 20/20 matters.

[64] See Supplemental Document 11.5 SIRN 20/20 Governance Recommendations for complete discussion on the proposed SIRN governance, authority, policies and procedures.

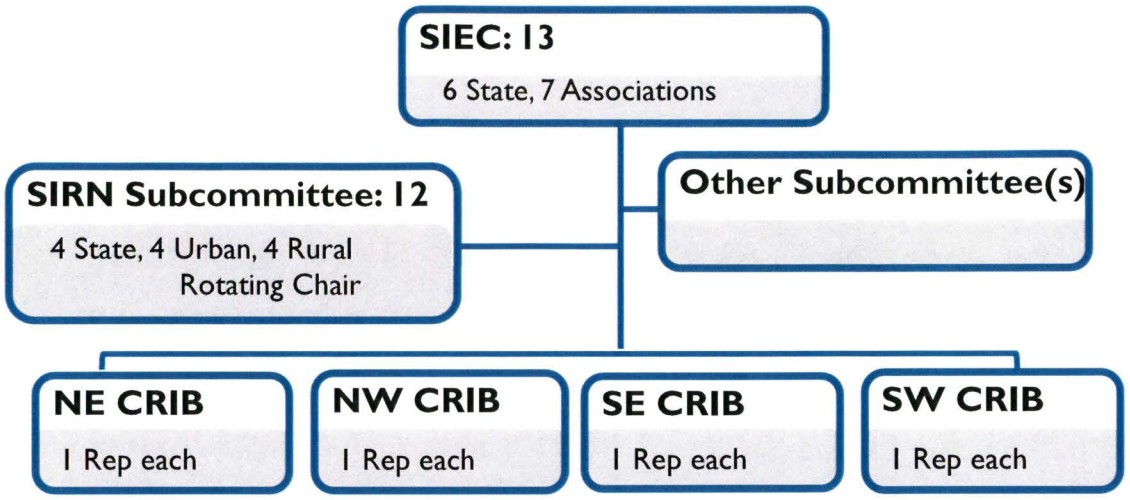


Figure 22: Recommended Structure for SIRN 20/20 Governance

An overview of the governance structure is illustrated above with a brief discussion of the major recommendations on the function and authority of each in Table 17.

	Governance Groups and Responsibilities
SIEC Adjustments	▪ ***SIRN 20/20 governance should be within the SIEC.*** ▪ The SIEC Chair should be independent of any entity that manages a major system that the SIEC oversees. ▪ The SIEC should gain statutory authority to make SIRN 20/20 policy that is binding upon the entity that manages the SIRN 20/20 system. ▪ The SIEC should gain and exercise statutory authority to engage as the level of work requires its own professional staff (whether as employees or contractors) are accountable to the SIEC, including both a manager to perform administrative and policy tasks for the SIEC, as well as a minimum of two Regional Interoperability Coordinators (RICs) to foster regional and local interoperability and facilitate regional/local communication with the SIEC. ▪ *State agencies represented on the SIEC should endeavor to appoint one or more members of the SIRN 20/20 Subcommittee to represent tribal interests; such a member would count toward the "state" third of the SIRN 20/20 membership*
Coordinated Regional Interoperability Boards (CRIBs)	▪ ***The SIEC should establish four Coordinated Regional Interoperability Boards (CRIBs) as subcommittees of the SIEC.*** ▪ The four CRIBs correspond geographically to the four regions defined by the Department of Emergency Services for regional emergency response. ▪ Each county appoints one member to its CRIB.

	▪ The CRIB Chair serves for one year, alternating between "urban" and "rural" members.[65]
SIRN 20/20 Subcommittee	▪ ***The SIEC should create a SIRN 20/20 Subcommittee.*** ▪ Twelve members evenly divided in thirds among state/tribal, urban, and rural representatives, serving two-year terms. o Each CRIB appoints one member. o Each of the seven associations represented on the SIEC may nominate a rural member and an urban member; the SIEC appoints four of the nominees, maintaining the requisite urban/rural balance. o The SIEC appoints four state/tribal members from among nominees provided by the six state agencies represented on the SIEC. o Nominating and appointing entities are urged to coordinate to ensure membership possesses diversity of geography, public safety discipline, relevant professional experience, and relevant skill sets. o At least two but no more than four SIRN 20/20 Subcommittee members must also be SIEC members. ▪ Subcommittee originates all SIRN 20/20 policy measures and proposes them to the SIEC, which must adopt the measure or decline with explanation; the SIEC may not adopt language unless it is submitted by the SIRN 20/20 Subcommittee. ▪ Chair position rotates annually among "state," "urban," and "rural" groups. ▪ Subcommittee leadership must be independent of the entity that manages SIRN 20/20.

Table 17: Governance Groups and Responsibilities

Finally, it is also recommended that the SIEC take three specific actions immediately in order to meet the Legislative Assembly's request for input to its consideration of the SIRN 20/20 initiative.

- The SIEC should establish the SIRN 20/20 Subcommittee now under its own authority; it may re-establish the Subcommittee under new statutory authority at a later time if appropriate.
- The SIRN 20/20 Subcommittee should propose and the SIEC should ***adopt a measure identifying an entity to manage the SIRN 20/20 network***.
- The SIRN 20/20 Subcommittee should propose and the SIEC should adopt a cost-sharing plan to support the SIRN 20/20 initiative.

[65] Urban: Loosely defined, A SIRN Subcommittee member is an "urban" member represents a city or town with a population of over 10,000

SIRN 20/20 Usage and Participation Framework

The SIEC, in collaboration with the SIRN 20/20 Subcommittee, would be responsible for developing and establishing a set of policies and procedures on daily operations, system usage, cost-sharing models, asset-sharing agreements and several SIRN 20/20 initiatives.

Participation Agreements: The SIRN 20/20 Operating Entity would likely enter into agreements with county and/or municipal governments structured as memorandums of understanding (MOU) that outline the terms and conditions of the agreement and mutual expectations. The Study, among several other deliverables, has drafted potential MOUs for use, if SIRN 20/20 is to move forward.

Asset-Sharing Agreements: Similarly, the SIRN 20/20 program would also enter into asset sharing or leasing agreements with local entities for the use of existing assets such as radio towers. Upon consultation with a small group of state and local government asset owners, a plain-language agreement template to facilitate the sharing of government assets has been developed. The template, when filled in with appropriate information on specific parties and assets, can be used to memorialize the terms of the agreement between the network operator and the asset owner or controller to share the asset for use in the network.

NEXT STEPS AND OTHER NEAR-TERM STATE-LED/REGIONAL COMMUNICATIONS INITIATIVES

COMMUNICATIONS INITIATIVES

There are a variety of near and mid-term initiatives that can be implemented to advance public safety communications in the State of North Dakota. These efforts can be pursued in parallel with, and incorporate some elements of the SIRN 20/20 initiative and planning process detailed in this document. These initiatives build upon the current efforts of the Department of Emergency Services, which spearheads and facilitates many beneficial training and exercises support statewide.

The SIEC should establish the Coordinated Regional Interoperability Board (CRIBs), and establish the necessary staff to support these efforts at the regional level. While the SIEC, and virtually all public safety disciplines, organize discipline-specific regional events, the CRIBs would foster a more concerted avenue for SIEC or communications activities at the regional level. The Regional Conferences conducted during the Study were widely acknowledged by participants as a valuable forum to exchange ideas and lessons learned, specifically on communications efforts.

ADVANCING THE SIRN 20/20 STUDY

With respect to advancing the SIRN 20/20 effort itself, ITD, in collaboration with the SIEC, continues to conduct outreach efforts and further evolve the structure for SIRN 20/20. Assuming SIRN 20/20 advances, a set of recommended efforts, many of which are discussed in this report, should begin shortly thereafter, including:

- Implementation of the proposed Governance Structure
- Advance the Outreach, Public Relations and Regional Efforts
- Additional field studies to document and evaluate network assets
- Establish a program office to spearhead the procurement process

CONCLUSION

A confluence of several circumstances have led to the State's public safety agencies' growing and pressing need for upgrades to their radio communications systems. Many of the state and local systems are based on legacy technologies that provide limited functionality, have diminishing serviceable lifespans and will no longer be supported by their manufacturers. These systems have also not kept pace with the State's population increase and the corresponding rise in public safety incidents and activities, and the evolution of first-responders operational needs, procedures, federal regulations and overall expectations for performance, reliability and interoperability.

To determine the desirability and feasibility of a *Statewide Interoperable Radio Network* (or SIRN 20/20), a rigorous and multi-pronged approach Study was undertaken employing a technical capability and lifecycle audit of the existing state and local communications systems; thorough engagement and survey of virtually all North Dakota county public safety disciplines and representatives; and detailed technical, operational and financial investigations of prospective solutions. Based on this thorough approach, the Study concluded that SIRN 20/20—a holistic evolution of the State and Local communications networks into a single integrated statewide solution—is a solution that is *desired* and is *feasible*. As with any network of this nature however, SIRN 20/20 will not be without its challenges – SIRN 20/20 has to be an adequate and affordable replacement for local networks, begin deployment in a timely manner to ensure broad participation, and employ sustainable funding streams and proper governance that provides transparency and responsiveness to local partners.

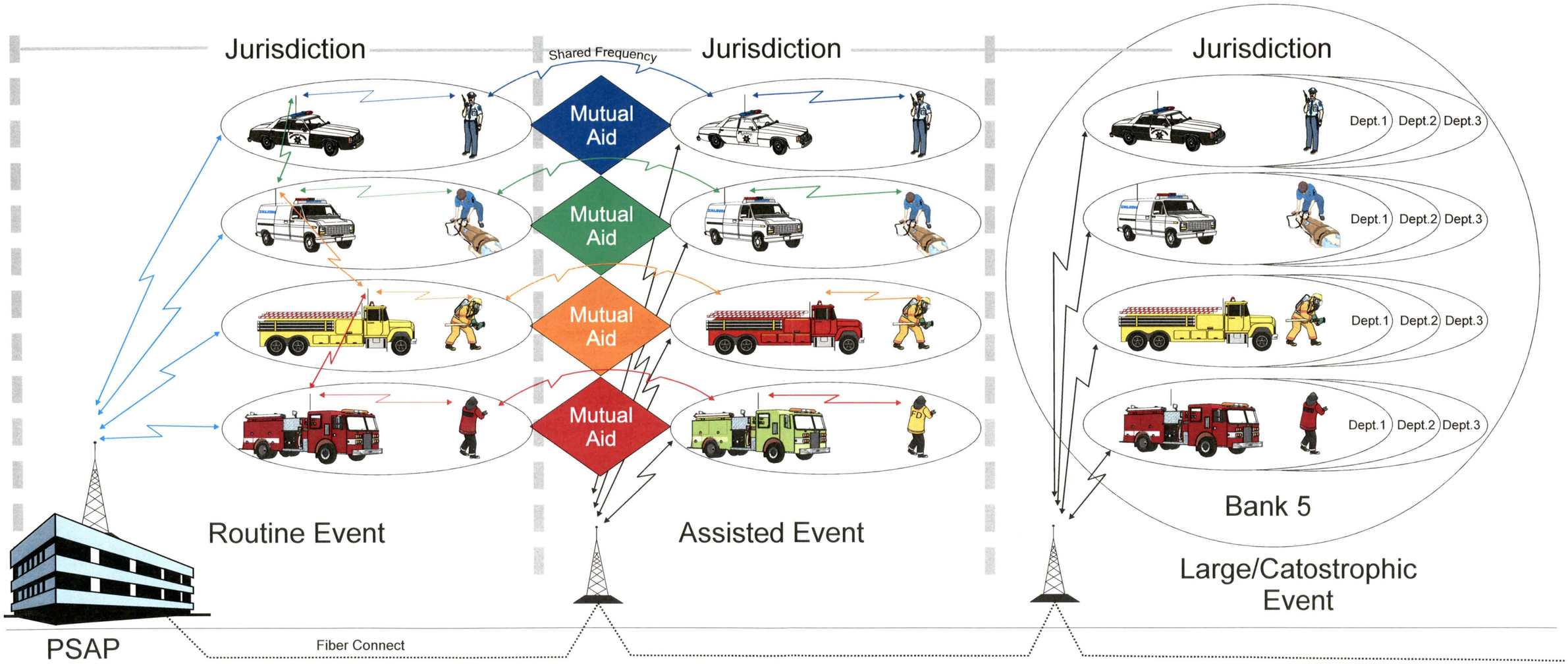
SUPPLEMENTAL DOCUMENTS

The following documents were developed in conjunction with the SIRN 20/20 Feasibility Study Final Report providing further background and discussion on various topics within the final report, and can be provided upon request.

1.1 SIRN 20/20 Architecture, Implementation and Migration Plans Overview
1.2 SIRN 20/20 VHF Coverage Plan and Design
1.3 SIRN 20/20 Very High Frequency (VHF) Survey and Plan
1.4 SIRN 20/20 Survey and Needs Assessments Findings Summary
1.5 SIRN 20/20 Governance Recommendations
1.6 SIRN 20/20 Participation Memorandum of Understanding Template
1.7 SIRN 20/20 Asset-Sharing Agreement Template
1.8 SIRN 20/20 Cost Estimates Development and Revenue Models
1.9 SIRN 20/20 Study Outreach, Data Collection, Requirements Gathering Process Overview

Conventional Radio System

A conventional system is the most basic radio communications system. It is what North Dakota has today and has been in existence since 1950. Conventional radios operate on fixed channels and each user group is permanently assigned a fixed frequency or a set of frequencies. Radios with multiple channels operate one channel at a time allowing the user to scan mulitple channels. The proper channel is selected by a user. In multi-channel systems, channels are used to separate purposes. Channels may be reserved for law enforcement, fire, and others. Only one radio can use a single frequency at any one time. If two radios attempt to transmit in the same frequency at the same time, signal collision will cause interference. The system requires several frequencies to talk among responder groups and achieve interoperability. Interoperability requires frequencies to be shared. Radios have each frequency programed in so communications in joint emergency operations and mutual aid can be achieved. The diagram below depicts generically how the current conventional radio system works in North Dakota regardless of PSAP or jurisdiction.



Pros:

Users equipped with radios from different manufacturers can communicate with one another provided radios are programmed to the same frequency.

The system is less expensive to own and operate.

Life cycle is hardware based versus software or controller based and is generally longer than trunked radios.

Cons:

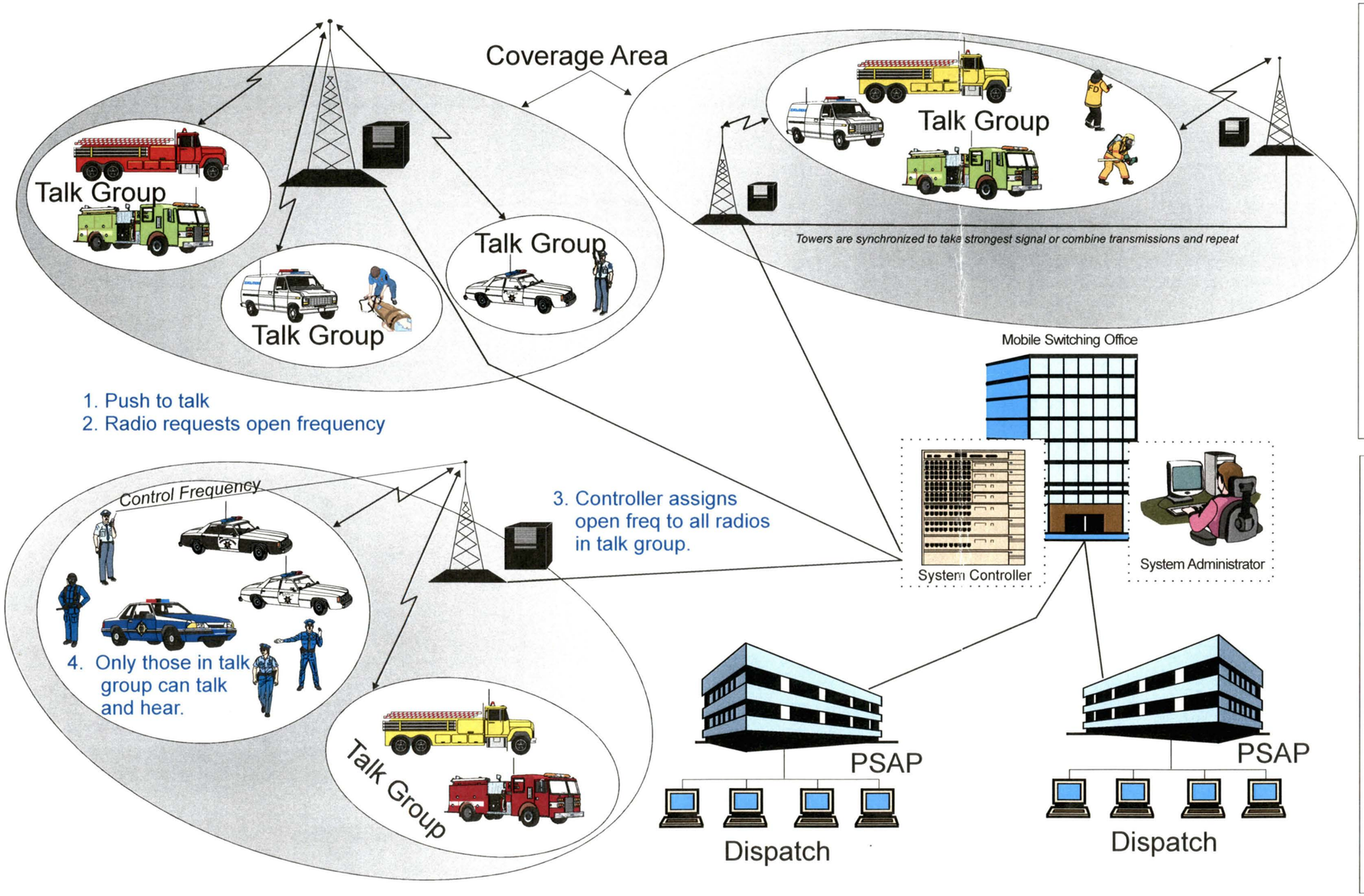
There are user accessibility delays when a channel is being utilized by other users.

There are security concerns because of the ease of “eavesdropping” on potentially sensitive communications by the public or media equipped with scanner radios unless the communication is encrypted.

Radio users loose communications with “home” in mutual aid or regional response.

Trunked Radio System

A trunked radio system is a computer-controlled two-way radio system that allows sharing relatively few radio frequency channels among a large group of users. Instead of assigning a radio channel to one particular organization at a time, users are instead assigned to a logical grouping, a "talkgroup". These can be thought of as virtual channels which appear and disappear as conversations occur. When any user in that group wishes to converse with another user in the talkgroup, a vacant radio channel is found automatically by the system and the conversation takes place on that channel. The controller sends a digital signal to all radios monitoring that talkgroup, instructing the radios to automatically switch to the frequency indicated by the system to monitor the transmission. After the user is done speaking, the users' radios return to monitoring the control channel for additional transmissions. With a trunked system, radios do not talk to radios. All traffic is routed through the controller and repeated. Interoperability is achieved by adding units into a talk group and can be accomplished on the fly remotely without a need to reprogram radios.



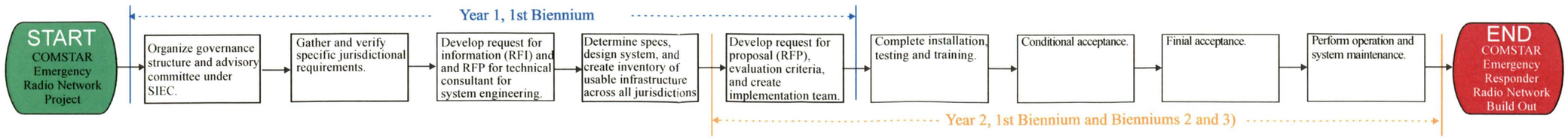
Pros:

- Provides seamless communications throughout the radio system's coverage area.
- Provides improved radio frequency utilization.
- Provides improved coverage in areas with difficult terrain.
- New design provides improved in-building coverage.
- Looks like an ordinary radio.
- The same radio model can be used for many different types of system users (i.e. Police, Public Works, Animal Control, etc.)
- It is more difficult for a scanner listener without a programmed trunk tracking scanner to keep up with the conversation.
- Radios possess the ability to be individually disabled if lost or stolen.

Cons:

- Trunked radio systems are vulnerable to sophisticated denial of service attacks.
- Trunked radio systems rely on a centralized computer controller to make channel assignments.
- The audio latency through a digital trunked radio system can be quite high.
- Trunked radio systems rely on proprietary software.
- Interoperability with radio systems that use different trunking technology (different brand of equipment or different software versions) is usually not possible.
- Controller problems can have an impact on thousands of radios.
- Build, operations, and maintenance costs are significantly greater than conventional systems.

High Level Project Flow Chart



4/7/2017 HB 1178 Attachment #1 pg 1

17.0592.03003
Title.

Prepared by the Legislative Council staff for
Senator Cook

April 6, 2017

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1178

Page 1, line 1, after "to" insert "create and enact a new section to chapter 37-17.3 of the North Dakota Century Code, relating to the creation of a statewide interoperable radio network fund, to"

Page 1, line 1, after "reenact" insert "subsection 1 of section 37-17.3-02.2, subsection 4 of section 54-59-05,"

Page 1, line 2, after "to" insert "the statewide interoperability executive committee,"

Page 1, line 2, after the third "the" insert "powers and duties of the information technology department, the"

Page 1, line 3, after the second "fee" insert "; to authorize borrowing authority; to provide an appropriation; to provide statements of legislative intent; to provide for a budget section report; and to provide an expiration date"

Page 1, after line 4, insert:

"**SECTION 1.** A new section to chapter 37-17.3 of the North Dakota Century Code is created and enacted as follows:

Statewide interoperable radio network fund.

1. A fund known as the statewide interoperable radio network fund must be maintained in the state treasury. Subject to legislative approval and statewide interoperability executive committee approval, moneys in the fund must be used for providing the required state share of funding for expenses associated with the purchase, installation, operation, and maintenance of a statewide interoperable radio network. The fund consists of all moneys transferred into the fund, interest earned on moneys in the fund, payments to the fund, and other fund earnings.

2. The chief information officer of the information technology department may apply for and accept funds, grants, gifts, or services made available for the statewide interoperable radio network by an agency or department of the federal government or any other person. Any funds, grants, or gifts, or moneys received from services received under this section must be deposited in the statewide interoperable radio network fund.

3. Revenue received by a political subdivision in accordance with subsection 2 of section 57-40.6-02 must be remitted to the state treasurer for deposit in the statewide interoperable radio network fund.

SECTION 2. AMENDMENT. Subsection 1 of section 37-17.3-02.2 of the North Dakota Century Code is amended and reenacted as follows:

1. The statewide interoperability executive committee consists of:

   a. The director of state radio or a designee;

b. The director of the division of homeland security or a designee;

c. The superintendent of the highway patrol or a designee;

d. The adjutant general or a designee;

e. The director of the department of transportation or a designee;

f. A representative of the North Dakota sheriff's and deputies association;

g. A representative of the North Dakota emergency managers association;

h. A representative of the North Dakota fire chiefs association;

i. A representative of the North Dakota emergency medical services association;

j. A representative of the North Dakota police chiefs association;

k. A representative of the North Dakota peace officers association;

l. A representative of the North Dakota 911 association; ~~and~~

m. The North Dakota chief information officer or a designee;

n. The North Dakota Indian affairs commission executive director or a designee; and

o. One member of the North Dakota house of representatives and one member of the North Dakota senate appointed by the legislative management.

SECTION 3. AMENDMENT. Subsection 4 of section 54-59-05 of the North Dakota Century Code is amended and reenacted as follows:

4. May purchase, finance the purchase, or lease equipment, software, or implementation services or replace, including by trade or resale, equipment or software as may be necessary to carry out this chapter. ~~An~~With the exception of agreements entered into related to the statewide interoperable radio network, an agreement to finance the purchase of software, equipment, or implementation services may not exceed a period of five years. The department shall submit any intended financing proposal for the purchase of software, equipment, or implementation services under this subsection, which is in excess of one million dollars, to the budget section of the legislative management or the legislative assembly before executing a financing agreement. If the budget section or the legislative assembly does not approve the execution of a financing agreement, the department may not proceed with the proposed financing arrangement. ~~The~~With the exception of financing for the statewide interoperable radio network, the department may finance the purchase of software, equipment, or implementation services only to the extent the purchase amount does not exceed seven and one-half percent of the amount appropriated to the department during that biennium."

Page 1, line 22, remove "dedicated to the political subdivision obligation to"

Page 1, line 23, remove "the statewide interoperability radio network and"

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Page 1, line 23, remove "governing joint powers"

Page 1, remove line 24

Page 2, line 1, replace "interoperability radio network" with "state treasurer for deposit in the statewide interoperable radio network fund in accordance with section 1 of this Act for implementing a statewide interoperable radio network"

Page 3, after line 28, insert:

"**SECTION 6. STATEWIDE INTEROPERABLE RADIO NETWORK IMPLEMENTATION - FUTURE EXPENDITURES.** During the 2017-18 interim, the information technology department shall begin implementation of a statewide interoperable radio network based on findings in the North Dakota statewide interoperable network feasibility study and its recommendations as adopted by the statewide interoperability executive committee. Current and future appropriations and local government contributions for improvement or expansion of state or local public safety land mobile radio systems must be expended in a manner consistent with the recommendations of the statewide interoperability executive committee and only for solutions that are determined by the committee to be interoperable and functional with the statewide system.

SECTION 7. LOAN AUTHORIZATION - APPROPRIATION - STATEWIDE INTEROPERABLE RADIO NETWORK - BUDGET SECTION REPORTS. The information technology department may obtain a loan, subject to budget section approval, from the Bank of North Dakota in an amount not to exceed $15,000,000, the sum of which is appropriated to the information technology department, for the purpose of defraying the expenses of the statewide interoperable radio network for the biennium beginning July 1, 2017, and ending June 30, 2019. The term of the loan may not exceed six years. The loan authorized in this section must be repaid from funds available in the statewide interoperable radio network fund. During the 2017-18 interim, the information technology department shall provide status reports to the budget section regarding the implementation and progress of the statewide interoperable radio network.

SECTION 8. RADIO FREQUENCIES. By September 30, 2018, all North Dakota entities operating a public-safety answering point shall relinquish legal rights to any radio frequency required for the statewide interoperable radio network trunk system, allowing these frequencies to be utilized by the state of North Dakota for the use of this network.

SECTION 9. LEGISLATIVE INTENT - STATEWIDE INTEROPERABLE RADIO NETWORK CONSOLIDATION. It is the intent of the sixty-fifth legislative assembly that during the 2017-18 interim, the information technology department and statewide interoperability executive committee make efforts to consolidate certain functions within the statewide interoperable radio network.

SECTION 10. EXPIRATION DATE. This Act is effective through July 31, 2023, and after that date is ineffective."

Renumber accordingly