Submitted to Large Project Oversight on 09/10/2019

GENERAL INFORMATION

Program/Project Name: North Dakota Statewide Interoperable Radio Network (SIRN)

Agency Name: North Dakota Information Technology (NDIT)

Project Sponsor: Duane Schell **Project Manager:** Darin Anderson

PROJECT DESCRIPTION

A significant portion of the public safety community has stated that current land mobile radio networks limit the ability of 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. Additionally, current public safety land mobile radio systems may not consistently meet regional/statewide needs in providing suitable functionality across all operating environments and locations.

Significant additional factors supporting the timing of meeting the business needs

- 1. Approximately 40% of all public safety communications equipment across the state is approaching "End of Support" from manufacturers (2018-2020)
- 2. Current interoperable communications are limited and require significant work arounds, while not readily supporting field interoperability and communications with the local 911 dispatch centers
- 3. Procurement and implementation of Mission Critical Communications must address at a minimum
 - a. Reliability
 - b. Coverage
 - c. Interoperability
 - d. Sustainability
- 4. Current Issues experienced within North Dakota
 - a. Coverage Challenges
 - b. Interoperability Challenges
 - c. End of Support Challenges (2018)

To ensure maximum adoption and an efficient communications ecosystem, the SIRN Program will be comprised of multiple projects, and will 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. SIRN solutions will be substantially anchored on existing public (State and Local) infrastructure to leverage all suitable investments.

The program solution for SIRN consists of three principal attributes:

- Deliver effective radio coverage and interoperability
- Ensure feature accessibility and timely/reliable maintenance
- Leverage inclusive Governance

Another way to describe this is the need to deliver the right combination of people, processes, and technologies; in that order. Based on legislative guidance, the SIEC in concert with NDIT will establish an overarching SIRN program based on selection and procurement of a key partner or partners in meeting the business need. Since the selected contractor will be critical in determining the priority of work, use of funds and identification of objectives for each approved project, along with specific business objectives and measurements will be developed and confirmed as part of planning for each project, with SIEC concurrence prior to baselining the project.

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BUSINESS NEEDS AND PROBLEMS

Per the Statewide Interoperable Radio Network Feasibility Study, 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 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.

PROJECT FORMAT

Program/Project Start Date: August 1, 2019

Budget Allocation at Time of Initial Start Date: \$120,000,000

How Many Phases Expected at Time of Initial Start Date: Three Phases, with sub phases or groups each being managed as a project

Phased Approach Description: Iterative waterfall

Estimated End Date for All Phases Known at Time of Initial Start Date: Term of the contract is 5 years (August 2024), with up to 4 one-year extensions.

PROJECT ROAD MAP

The project road map shows the high level plan or vision for the program/projects/phases. It is intended to offer a picture of the lifespan of all the effort that is expected to be required to achieve the business objectives.

Project	Title Scope Statement		Estimated	Estimated
or Phase			Duration	Budget
			(months)	
Phase 1	Core & Consoles	Establish Network Core and Five (5) PSAP equipment	11 Months	\$5,741,102.14
Group 1	(5)	replacements (Grand Forks, Minot, Stutsman,		
		Barnes, & Richland		
Phase 1	Console	Console replacement group 2	TBD	TBD
Group 2	Replacement			
Phase 1	Console	Console replacement group 3	TBD	TBD
Group 3	Replacement			
Phase 1	Console	Console replacement group 4	TBD	TBD
Group 4	Replacement			
Phase 2	RF Buildout &	RF Buildout of state-owned towers, tower	TBD	TBD
Group 1	Simulcast	construction, enclosure construction and Simulcast		
Phase 2	RF Buildout &	RF Buildout of leased tower sites and Simulcast	TBD	TBD
Group 2	Simulcast			

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Phase 2	RF Buildout &	RF Buildout of leased tower sites	TBD	TBD
Group 3	Simulcast			

PROJECT BASELINES

The baselines below are entered for only those projects or phases that have been planned. At the completion of a project or phase a new planning effort will occur to baseline the next project/phase and any known actual finish dates and costs for completed projects/phases will be recorded. The startup report will be submitted again with the new information.

Project	Program/	Baseline	Baseline	Baseline	Actual	Schedule	Actual Cost	Cost
or Phase	Project Start	Execution	End Date	Budget	Finish Date	Variance		Variance
	Date	Start Date						
Phase 1	2012	8/2019	6/2020	\$5,741,102.14	TBD	TBD	TBD	TBD
Group 1								
Phase 1								
Group 2								
Phase 1								
Group 3								
Phase 1								
Group 4								
Phase 2								
Group 1								
Phase 2								
Group 2								
Phase 2								
Group 3								

OBJECTIVES

Project	Business Objective	Measurement Description	Met/	Measurement Outcome
or Phase			Not Met	
Phase 1 Group 1	Establish SIRN Network Cote & PSAP Console Replacement (5)	Establishment of a fully redundant core and installation of fully functional PSAP equipment		No impacts to daily operations at the PSAP level
Phase 2	RF Buildout of state-			
Group 1	owned towers, tower construction, enclosure construction and Simulcast			
Phase 1	Console replacement			
Group 2	group 2			
Phase 2	RF Buildout of leased			
Group 2	tower sites and Simulcast			
Phase 3	RF Buildout of leased tower sites and Simulcast			

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POST-IMPLEMENTATION REPORT

Post-Implementation Reports are to be performed after each project or phase is completed. A "PIR" is a process that utilizes surveys and meetings to determine what happened in the project/phase and identifies actions for improvement going forward. Typical PIR findings include, "What did we do well?" "What did we learn?" "What should we do differently next time?"

Project or Phase	Lesson learned, success story, idea for next time, etc.
Phase 1	
Group 1	
Phase 2	
Group 1	
Phase 1	
Group 2	
Phase 2	
Group 2	
Phase 3	

KEY CONSTRAINTS AND/OR RISKS

The program has the following constraints:

- NDIT and Public Safety Agency Resources (business, technical) are limited in the number of staff available
- The full program schedule cannot be established due to the long duration; therefore, schedule management is constrained to each phase of the project
- Future funding appropriations are necessary to complete all phases
- Cost, schedule, scope, and quality are often in conflict during releases. The sponsor and ESC elected to prioritize these constraints as follows for the program:
 - 1. Scope
 - 2. Quality
 - 3. Cost
 - 4. Schedule

The program has the following risks:

• North Dakota weather – since there is considerable amounts of civil work to be completed. The North Dakota weather is a risk to all phases of the project. The team will attempt to schedule outdoor civil work based on average weather patterns. However, weather may fluctuate outside of the normal patters and impact the project.