



# Nebraska (NE)

**PSIC Federal Award: \$8,582,108**

(Awarded September 30, 2007)

## Summary

PSIC Investment Justification	Federal Funds
Strategic Technology Reserve (STR)	\$377,500
Tower Infrastructure	\$500,000
Regional Public Safety Answering Point (PSAP) Interoperability	\$1,335,000
Regional PSAP Interconnectivity	\$2,957,500
Mutual Aid Frequency Overlay	\$800,000
PSAP Upgrade, SmartX Migration, Project 25 (P25) Master Site	\$497,000
Mobile Data System	\$877,030
Southeast Region Wireless Data	\$997,078
Management and Administration (M&A)	\$125,000
Statewide Planning	\$116,000
<b>Total PSIC Award</b>	<b>\$8,582,108</b>

**Pass Through:** The State of Nebraska fulfilled the PSIC Grant program’s requirement by using a combination of Memoranda of Understanding (MOUs) and passing through of funds. The State passed slightly under the minimum 80 percent of the funds to local or tribal government bodies or authorized nongovernmental public safety agencies. The Nebraska Emergency Management Agency (NEMA) entered into MOUs with Scotts Bluff County and the Nebraska Council of Regions. These agreements authorize NEMA to expend PSIC funding on behalf of these entities.

**Strategic Technology Reserve (STR):** Nebraska submitted a written request for a partial STR waiver based on the fact that Nebraska has previously invested in efforts to establish an STR. Nebraska was granted a partial waiver and will use a portion of its PSIC funding (\$287,172) for other PSIC Investments.

## Investments

State-level Match Amount: \$406,055

### Strategic Technology Reserve (STR)

Federal Amount:	\$ 377,500
Non-Federal Match Amount:	\$ 75,500
<b>Total Project Cost:</b>	<b>\$ 453,000</b>



<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

Past natural disasters have illustrated a need for Nebraska to acquire communications equipment that is capable of re-establishing communications in the event of system failure. Currently, the State maintains several mobile vehicles and trailers equipped with towers, generators, a cache of radios, interconnect systems, and satellite phones that are pre-deployed throughout the State. This Investment will enhance the current STR solution to acquire additionally mobile tower equipment. This Investment satisfies the PSIC Program requirement to develop and implement an STR that is pre-positioned, deployable, and able to reestablish communications when critical communications equipment is damaged or destroyed.

### Tower Infrastructure

Federal Amount:	\$ 500,000
Non-Federal Match Amount:	\$ 100,000
<b>Total Project Cost:</b>	<b>\$ 600,000</b>



<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

Nebraska's southwest region has identified coverage deficiencies in existing radio systems, particularly in the border areas between the City of Lincoln/Lancaster County and Gage County. This area includes a heavily traveled highway corridor that relies on cross-jurisdictional support, mutual aid, and interoperable communications between public safety and response agencies. This Investment provides for the construction of a tower site, shelter, and backup power systems, to expand coverage and increase reliability in communications between the two counties. All public safety entities in the southwestern region of the State will benefit from this new equipment and increased coverage. The tower will also provide coverage for an emerging statewide radio system and will serve as a central anchor site for the eastern and western regions of the State.

## Regional Public Safety Answering Point (PSAP) Interoperability

Federal Amount:	\$ 1,335,000
Non-Federal Match Amount:	\$ 257,000
<b>Total Project Cost:</b>	<b>\$ 1,592,000</b>



<b>97%*</b> Acquisition & Deployment	<b>3%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

The State of Nebraska is composed of 93 counties and 100 public safety answering points (PSAP). The eastern counties operate on mostly 800 MHz trunking systems. The remaining counties operate on a mix of VHF, UHF, and 800 MHz, which makes interoperable communications a challenge. This Investment will use a “system of systems” approach to link first responders operating on disparate systems. The Investment will provide direct radio/telephone/Internet protocol (IP) communications among first responders, dispatchers, and emergency management personnel and will link first responders, outside agencies, and nongovernmental organizations (public utilities, hospitals and tribal councils) to facilitate an effective and coordinated response. IP technology will be used to bridge communications between disparate frequencies and act as a gateway between disparate systems.

## Regional PSAP Interconnectivity

Federal Amount:	\$ 2,957,500
Non-Federal Match Amount:	\$ 557,500
<b>Total Project Cost:</b>	<b>\$ 3,515,000</b>



<b>95%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>5%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

The reliability of the communications system in use in the South Central Planning, Exercise, Training (PET) Region has been inconsistent. The system has worked well locally, but when used regionally, there have been issues with the commercial Internet connectivity that enables access to the system. This Investment installs inter-county microwave links, which will allow each county/region to access the secure network and maintain communication with personnel outside of their normal operating region. Use of the 4.9 gigahertz (GHz) public safety-only frequency will allow each of the eight State regions to sustain communications with public safety personnel for daily operations or major incidents. This Investment will improve interoperability between public safety agencies, increase reliability for all users, and provide backup and redundant systems to ensure continuity of communication and interoperability in the event of a major incident or system failure.

## Mutual Aid Frequency Overlay

Federal Amount:	\$ 800,000
Non-Federal Match Amount:	\$ 160,000
<b>Total Project Cost:</b>	<b>\$ 960,000</b>



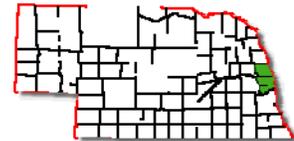
<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

During emergencies and disasters, communications systems are challenged by increased call volume. This challenge was addressed in the statewide mutual aid frequency plan, which cites the need for shared communication assets to provide additional capacity during major incidents. This Investment implements VHF and UHF narrowband mutual aid frequency overlays on local towers across the State. This strategy will enable legacy systems to communicate with newer trunked systems through the use of gateways. The 800 megahertz (MHz) overlay will expand the reach of current trunked system coverage into neighboring rural and conventional 800 MHz systems and provide a means for public safety agencies to communicate during major emergencies and disasters.

## PSAP Upgrade, SmartX Migration, Project 25 (P25) Master Site

Federal Amount:	\$ 497,000
Non-Federal Match Amount:	\$ 99,400
<b>Total Project Cost:</b>	<b>\$ 596,400</b>



<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

Sarpy County is the only county in the Omaha Tri-County metropolitan area – covering the City of Omaha, Douglas County, Sarpy County, and Washington County – that does not use a P25 compatible system. Additionally, Sarpy County’s current 800 MHz system is outdated and approaching the end of its lifespan. This Investment will address this communication gap by funding a solution to connect to the regional P25 Master Site located in Douglas County and new controllers to allow Sarpy County to expand their system capabilities using channels in the 700 MHz range. Connecting Sarpy County to the existing regional system will provide increased coverage, capacity and reliability for the County and for the public safety agencies operating on its system.

## Mobile Data System

Federal Amount:	\$ 877,030
Non-Federal Match Amount:	\$ 175,406
<b>Total Project Cost:</b>	<b>\$ 1,052,436</b>



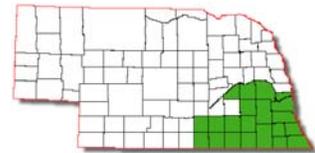
<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

This Investment adds needed data capabilities to the current Omaha regional 700/800 MHz system. The High Performance Data (HPD) system will provide seamless wide-area mobile data communications for public safety agencies and local governments. The Investment extends the current IP-based infrastructure to provide wide-area mobile data communications and is designed to operate in the public safety frequency bands. A newly designed radio frequency modem will be implemented in vehicles for high capacity data transmission while still preserving future channels for increased bandwidth. Overall, this Investment enhances communication capabilities of public safety agencies and facilitates greater information sharing between agencies.

## Southeast Region Wireless Data

Federal Amount:	\$ 997,078
Non-Federal Match Amount:	\$ 199,416
<b>Total Project Cost:</b>	<b>\$ 1,196,494</b>



<b>100%*</b> Acquisition & Deployment	<b>0%</b> Training & Exercise	<b>0%</b> Planning & Coordination
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*\*Percentages include both Federal and non-Federal Match funds.*

This Investment will upgrade the current City of Lincoln/Lancaster County wireless data system, which lacks the data rate to support more complex queries into graphical and GIS-based databases. Additionally, the current infrastructure lacks the capacity to support wireless data on a regional basis. This Investment will more than quadruple the data rate by distributing five mobile data installations to each county. Additionally, this Investment uses Advanced Encryption Standard (AES) and a Record Management Sharing (RMS) solution – advanced technologies that enable greater interoperability and increase information sharing and communication capabilities.

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## PSIC Administration and Statewide Planning Costs

### Management and Administration (M&A)

Federal Amount:	\$ 125,000
Non-Federal Match Amount:	\$ 31,250
<b>Total Project Cost:</b>	<b>\$ 156,250</b>

The State was allowed to retain up to three percent of the total PSIC award for costs associated with the administration of the State's PSIC Investments. The M&A costs could include hiring full-time or part-time staff or contractors for grant management services related to reporting, monitoring and audit compliance, and associated travel and meeting expenses.

### Statewide Planning

Federal Amount	\$ 116,000
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The State was allowed to retain up to five percent of the total PSIC award for Statewide Planning costs associated with the incorporation of the PSIC criteria into the Statewide Communication Interoperability Plan (SCIP). The Statewide Planning period of performance was April 1, 2007–December 3, 2007, with the submission of the SCIP.

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