

NCOR- Regional Connectivity Project

Background:

The State of Nebraska has prioritized the need to achieve interoperable communications as its number one priority. In order to achieve that goal, the State is promoting the use of scalable technology enhancements to provide a baseline infrastructure that can interconnect with other systems and expand with user demand. The State of Nebraska's goal is to provide a high capacity network which will connect One Hundred Thirty Three (133) Public Safety Answering Points (PSAP) and Radio Link locations to each other utilizing a redundant Licensed Microwave Network Infrastructure. To that end, the state has issued an RFP to implement a regional microwave interoperability network and has announced its intent to award the project to Communications Services, Inc.

Purpose:

This network will allow for interoperability between all regional organizations and will interconnect with adjacent regions and the State of Nebraska to ensure the integrity of the regional communications network is maintained and backed up should a failure occur at an individual or group of locations. The design of the network in each region is based on the availability of sites that will successfully hold a microwave dish of a designated size. The potential sites can include communications towers, water towers, and building tops. The objective is to provide a redundant 100 Mbps minimum throughput network providing 99.999% link availability. The initial configuration of each regional network is designed to provide a private network in which to transmit voice and data over an Ethernet network. The members of the region will have primary control in determining the routing and prioritization of the data. This regional interconnectivity will allow the PSAP's to be connected for the real time sharing of information, radio connectivity, and potential backup. The other design feature for the network will be the connection of the regions with each other and the State of Nebraska. It is expected that, when complete, the network will provide both voice and data transmission. In addition to radio, this transmission use can include NAWAS, NCIC, 911 data, computer aided dispatch, and other uses.

Process:

The **Nebraska Emergency Management Agency (NEMA)** has been designated as the Project Manager for the implementation of the Regional Interoperability Network. As such they will oversee the implementation of each region's network to include purchase order and invoicing process, asset management tracking, approval of network final design including tower utilization, oversight of tower mapping to include scheduling and access coordination. NEMA will be responsible for coordinating with the Office of Chief Information Officer (OCIO) and the region's Point of Contact (POC)

The **OCIO** is responsible for contract oversight and the coordination of shared use for the state's towers, shelters, and network connectivity for State Agencies.

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Each **Communication Region** is responsible for coordinating with NEMA and the OCIO the design of the network that will exist in each region. This network should include those endpoints in the entire region that are deemed critical for public safety. For purposes of this network, an endpoint will be a tower or dish located on the microwave network that contains a router to which the local agency or local area network can connect for the transmission or reception of voice and data. If a city or county has a local area network that supports both a 24-hour communications center and an Emergency Operations Center, only one location needs to be connected. The region has to make these choices and can receive help and guidance from their respective NCOR representative. The owner of the tower within the region is responsible for any site or tower upgrades identified as a result of the tower analysis conducted by the contractor. The region has several responsibilities that are identified below:

- The region must appoint a single point of contact who will be responsible for providing the regions input when required:
 - Each region will be involved in a Network Design Review with the contractor, NEMA OCIO, NPPD and others.
 - The POC will be responsible for attending all meetings and informing all participating members of the region on matters that will affect the region.
 - The POC will have the authority to sign off on the final design review for the region.
- The POC will be responsible for arranging secure storage of the equipment within the region at a number of locations agreed upon with the contractor.
- The POC will be responsible for arranging tower and site access for all locations under the region's control.
 - Once the schedule is set with the contractor, it is imperative that access is allowed based on the schedule because timing is critical.
 - The POC will maintain a contact list for each site.
 - There is a possibility that several sites may be evaluated or installed simultaneously, so the scheduling must allow for simultaneous installation or evaluation..
- The POC will be responsible for identifying the number of Local Area Networks that may connect to the regional Wide Area Network (WAN), and the estimated bandwidth that might be exchanged between two points.
- The POC will be responsible for determining the priority of transmissions throughout the region.
- The POC will have the authority to sign for the region at the time of system acceptance.