

NRIN Network Subcommittee on Network Management

June 29, 2012

Attendees: Mark Conrey, Tri-County Region; Tim Hofbauer, East Central Region; Sue Krogman, NEMA, Pete Peterson, North Central Region; Andra Backer, PPC; Mark DeKraai, PPC; Denise Bulling, PPC; Pat Gerdes, Southwest Region; Chris Heinsley NPPD; Lon Renner, NPPD, Jeff Cadwaller, OCIO; Jim Sheets, OCIO.

- NRIN progress update:

The initial ring testing is complete. Testing results have been emailed to everyone. At this time the ring not fully operational. NPPD has a great deal of traffic that cannot be rerouted yet. When this is complete, they will be able to change out all of their microwaves. In order to begin testing functionality, several base stations will need to get online.
- Routers:

A discussion took place back in April regarding the routers to be used for this project. A concern was brought up that since the routers were a combination model, that it might be to our advantage to research a different model. The SRX240 and 210 are the models that are currently being used. Juniper has other models for core replacement. Unless the decision of this committee is to move in another direction we will continue to use what we have. The equipment must be compatible with what the state of Nebraska is currently using and is required for connection to the state network. The goal is to keep the same router brand/manufacturer. The existing RFP is over three years old now. If we want to reconfigure the pilot ring and replace those in the region, additional costs may be incurred. If so, we need to determine what that cost is and request guidance from the state as to what their recommendation would be based upon how the contract was written.
- Configuration:
 - IP Structure:

There is a need to establish the IP structure and how the system will be configured. The architecture needs to be laid out and development of these key items will fall under the agency that has responsibility for the project. There is also a need to create policy and procedure to define what is allowed on the network.
 - A multi-frequency analog base station is located at Mullen and Whitman, Arthur and Ogallala. These cannot connect to dispatch without a microwave. Mullen, Whitman and Arthur are looking to use this as an alternate means of communication if their current system fails. Pete wants access to use voice at this time in his region and data for possible environmental monitoring. This may require an Ethernet conversion. The committee agreed that the IP structure plan needs to come from the state level and in order for this to be developed.
- A cost estimate is currently being developed for the system equipment. A company called Junospace offers a management piece that is not currently used by the state. The state is more familiar with Juniper and NPPD is familiar with Cisco. NPPD would prefer to take on the monitoring portion of the project and would like the state to handle management. A firm decision is needed on what it would cost to do this. Cost sharing capabilities exist for use of the network and would need to be addressed. Once the rings have been built and the regions are connected, management of the system begins. Some repair and maintenance costs are included in the first two

NRIN Network Subcommittee on Network Management

June 29, 2012

years of the contract. NCOR could purchase the main system equipment and then turn it over to the agency responsible for management.

This committee would like recommendations on what equipment should be purchased. A discussion was held regarding pre-staged locations, similar to an outside circuit. This idea presents technical challenges and since maintenance, monitoring and configuration all tie together, this might be done using the existing state network. NPPD and/or the OCIO need to be involved to reduce the likelihood of IP related issue.

A large overall map is available that outlines the master plan/goal of this entire project. An "as built" map with router configurations would be helpful to have. This would outline the overall plan of what we want to connect and ensure that enough ranges and IP addresses exists. Voice and environmental monitoring are currently the only uses approved for the network at this point. The OCIO and NPPD are encouraged to identify the costs that will fall back on the regions as soon as possible. These usage terms could be defined in interlocal agreements.

The OCIO typically replaces the entire router if there are issues. Minimum technical qualifications need to be established to determine who can serve as an asset in the region and can provide support to the system. A decision was made that whoever enters in the interlocal agreement must identify a minimum of two technical people that are qualified and meet certain criteria and technical standards. These people could come together for a workshop on management, maintenance, monitoring and technical training for equipment usage and maintenance.

- Network Monitoring:

Environmental monitoring (who receives alerts) is another consideration that needs to be addressed. It is possible that the system could be monitored by the end user of the system which would be at the PSAP. This committee will need to decide if we wish to recommend a brand that has the desired capabilities for firewall and generator monitoring. Monitoring capabilities should be standardized.

- Network Management:

A meeting needs to take place to determine who will be in charge of managing the system. A decision regarding the maintenance and monitoring piece will need to be made by this committee. However, another conversation about monitoring should also occur. This committee will need to examine the cost/benefit for each option for network management and monitoring.

- Next Steps:

Pete will look into what it would take to get a gateway into the ring at the panhandle site. Once that is determined, everyone will need to be at that meeting. Pricing of the system will be done by the July 27, 2012. Ideally, we would like to have an estimate on the cost of monitoring by that date as well.

Sue will set a meeting date with the OCIO and NPPD. The OCIO will get server and hardware licensing costs as well as the tester costs to Sue today so that she can purchase them.

**NRIN Network Subcommittee on Network Management
June 29, 2012**

The meeting was adjourned at 1:00pm.