

**Nebraska Public Safety Wireless Broadband Working Group
Lincoln/Lancaster County Health Department
3140 N Street Lincoln, NE
Basement Training Rooms
September 29, 2015 1:00 P.M.
Minutes**

VOTING MEMBERS PRESENT

Tom Casady-Police Chiefs Association of Nebraska
Brian Daake- Nebraska Municipal Fire Chiefs Association
Gene Hand-Nebraska Public Service Commission
Bill Lundy-Nebraska State Volunteer Firefighters Association
Lynn Marshall- Nebraska Association of Emergency Managers
Neil Miller-Sheriff's Association of Nebraska
Tom Nutt-Nebraska Association of County Officials
Russ, Stanczyk-NSP/ State Law Enforcement
Julie Righter-Dove- APCO/ NENA
Jim Weeda-Nebraska Rural Electric Association (NREA)

NON-VOTING MEMBERS PRESENT

Ed Toner- Chief Information Officer State of Nebraska
Bob Wilhelm- OCIO

MEMBERS ABSENT

Vincent Bass- Winnebago Tribe of Nebraska
Jon Borton- Nebraska Hospital Association
Roger Foster- League of Neb. Municipalities
Stuart Redwing- Santee Sioux Tribe of Nebraska
Larry Voegele- Ponca Tribe of Nebraska
David Webb-NPPD

MEETING CALL TO ORDER/ ROLL CALL

Tom Casady (Chair) called the meeting to order at 1:00 P.M. Roll Call was taken. A quorum of voting members was present. The meeting was posted to the Nebraska Public Safety Broadband Network Planning Project Page and on the Nebraska Public Meeting Calendar.

ACKNOWLEDGE OPEN MEETING ACT AVAILABLE FOR REVIEW

Acknowledge Open Meeting Act is available for review in the back of the room post on the wall, as well as on the Nebraska Public Planning web page.

OPENING COMMENTS BY THE CHAIR- TOM CASADY

There are no opening comments at this time.

CHARTER REVISION APPROVED BY THE NPSCC- TOM CASADY

Director Casady briefed on agenda item #4 regarding the Working Group Charter Revision which the Working Group recommended and voted on at the May 20, 2015 meeting. The revision the Working Group voted forward was: 6.5 Meeting Attendance requirement – If a member and/or their designated alternate misses two consecutive meetings, the agency/organization/entity they are representing will be asked to remove the member and appoint a different representative to the Working Group. The Charter revision was voted on and passed at the September 3, 2015 meeting of the Nebraska Public Safety Communications Committee.

That now will be in effect.

INTRODUCTION OF WORKING GROUP MEMBERS

Tom Casady (Chair) asked each of the Working Group Members to introduce themselves and provide the entity that they represent. Tom Casady started, stating he represents the Police Chiefs Association. Neil Miller representing the Nebraska Sheriff's Association. Jim Weeda representing Nebraska Rural Electric Association. Lynn Marshall Sarpy County Emergency Management representing Nebraska Association with Emergency Managers. Bob Wilhelm CIO's Office. Brian Daake representing the Municipal Fire Chief's Association. Julie Righter-Dove representing APCO/NENA. Bill Lundy representing Nebraska's State Volunteer Firefighter Association. Ed Toner Chief Information Officer representing the State of Nebraska. Gene Hand representing Nebraska Public Service Commission. Russ Stanczyk representing Nebraska State Patrol.

PUBLIC ATTENDEES

Public attendees shared information about who they were and their agencies. The public included: Rosalia Solis- OCIO, Nathan Watermeier- State of Nebraska State GIS Coordinator, Ray Ryan- City Of Lincoln Radio System Supervisor, Mike Terkildsen Nebraska Department of Roads, Pete Crawford- Radio Shop City of Lincoln, Mark Meints- Nebraska Department of Roads, Troy Paisley- State of Nebraska COOP ADM, Al Krause NET Network Ops Supervisor, Bob Huber- Director of Network Distribution of Nebraska Education T.V., Dale Gibbs- Director Rural Health CHI Health Kearney, NE.

ACCEPTANCE OF THE MINUTES FROM THE AUGUST 20TH, 2015 MEETING

Gene Hand motioned to approve the August 20th, 2015 minutes as presented. Jim Weeda seconded. Tom Casady opened the floor on discussion. Lynn Marshall wanted it to be reflected in the minutes that he was not present at the August 20th, 2015 meeting. It has been noted to be updated. Roll Call vote: Casady- Yes, Daake- Yes, Hand- Yes, Lundy- Yes, Marshall- Yes, Miller-Yes, Nutt- Yes, Stanczyk-Yes, Righter-Dove- Yes, Weeda- Yes. Results: Yes- 10, No- 0, Abstained- 0. Motion Passed.

BRIEFING ON THE DATA COLLECTION PROCESS- BOB WILHELM

Bob Wilhelm stated that the main reason we are here today is to get the approval from the Working Group to forward the recommendations of the subcommittee regarding the five phases of the Network deployment in Nebraska to FirstNet. We also want to send the local input and changes to the Coverage Objective map and the on-line survey results to FirstNet on September 30th as well. We had talked at the last meeting that FirstNet had information that they wanted from Nebraska to use as they create the FirstNet RFP. A portion of the information we gathered through an on-line survey created by the OCIO's office that we asked public safety agencies to complete. FirstNet wanted to know agency

information, number of employees, the type of broadband devices and services agencies are using, the type of applications, and the amount of broadband that an agency anticipated using, etc. There were 65 questions on the survey and 344 agencies that responded after sending out notices to 1200 agencies seeking their input into the survey.

The chart below represents the survey response by discipline and the number and status of employees.

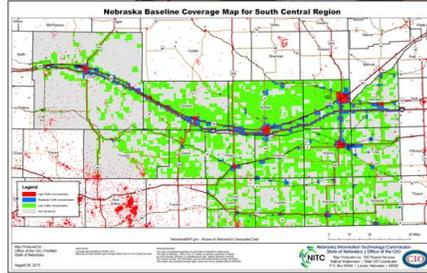
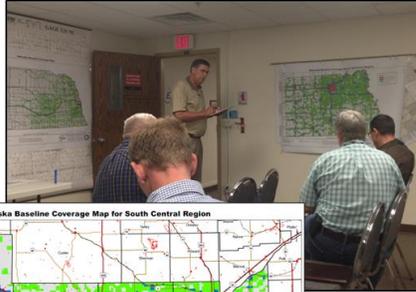
Survey Response by Discipline

Discipline	Total Employees	Full Time	Part Time	Volunteers	Total All People
Fire	1,280	1,227	53	1,799	3,079
EMS	337	200	137	437	774
EMS with Fire	221	124	97	1,379	1,600
Law Enforcement	4,701	4,299	402	258	4,959
Emergency Mgt. Agency	161	128	33	342	503
Hospital	12,890	9,877	3,013	2,128	15,018
Location Specific	15,110	14,362	748	4,111	19,221
Grand Total	34,700	30,217	4,483	10,454	45,154
Total Fire, EMS, Law Enforcement	6,539	5,850	689	3,873	10,412

This is some of the information that will be submitted tomorrow if approved by the Working Group. Wilhelm advised that there is still a secondary December deadline for those agencies that haven't completed the survey but now wish to do so. The post September survey information will be utilized when the state plan is being created by FirstNet and the successful bidder. Other information that FirstNet wanted was for the state to recommend the 5 stages of deployment for the Network in Nebraska. They have told other States that each of these 5 stages represent about a year. This RFP won't be put out until the end of 2016, beginning 2017 and Congress has asked them to have the Network up and running by 2022, which corresponds to the timeline of taking a year to complete each of the 5 stages. To gather this information we held 8 regional workshops (see chart below) that coincided with the geographical boundaries of the NEMA/ FEMA planning exercise and training regions. Information about the workshop was sent to the FirstNet County Representatives and ListSrv subscribers encouraging those interested parties to attend. There were 107 people that participated. At each of the workshops we asked participants help identify areas where critical infrastructure existed on the Coverage Objective map provided by FirstNet which they felt justified coverage or increased coverage by the Network. They were able to make the write ups on the map and provide us with an explanation as to why the specific area needed coverage or enhanced coverage from the initial Coverage Objective map.

Local and Regional Input

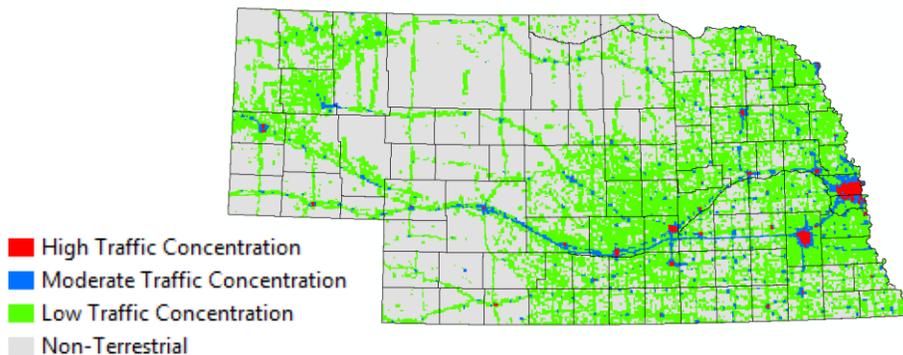
- 107 Participants
- 8 NEMA PET Regions
 - Beatrice
 - McCook
 - Wayne
 - Holdrege
 - Columbus
 - Taylor
 - Bellevue
 - Alliance



IMPACT OF NEBRASKA DATA COLLECTION ON FIRSTNET COVERAGE OBJECTIVE MAP

Nathan Watermeier reminded everyone that at the last meeting we had a starting point as FirstNet had created a baseline Coverage map to help us start our discussions. Please keep in mind that traffic as mentioned in the legend for the maps below do not mean vehicular traffic or communications traffic. It's the representation of the risk areas of high, medium, and low data presence.

Starting Coverage Objective Map



Nathan said the reason for going out and getting information on the maps from the workshops was to identify areas that we needed to make sure there was coverage. Most of these inputs and changes were hand written, but we did offer an online viewer for people to use. Based on the input and the ranking that we had on the priority areas Nathan modified the map shown below.

Recommended Coverage Objective Map



The workshop stakeholders were asked to prioritize how they would like to see the 5 stages of FirstNet deployment in their region and then recommend the 5 stages of deployment for FirstNet across Nebraska. The chart below shows those the recommendations from each regional workshop.

Recommendations for Five Phases of Deployment for FirstNet across Nebraska

9/24/2015

Statewide Priorities								
Priority	Southeast	South Central	Southwest	Panhandle	North Central Sandhills	Northeast	East Central	Tri-County
1	High population areas	Critical infrastructure (i.e. hospitals, power transmission and distribution lines, correctional facilities)	State and federal highways with 5 mile corridor	Critical infrastructure (utilities, rail, pipelines, water supplies).	Paved highways	State and Federal Highways	Paved highways with coverage 5 miles on either side.	Schools (K-12), Colleges, Universities, and Hospitals
2	Federal and State Highways	State-wide public safety/First Responder coverage.	State and federal recreation areas	Paved major roadways (State and Federal).	Agricultural production and manufacturing areas	FirstNet coverage where cellular coverage does not exist based on risk analysis	Lakes, waterways and canals	Large public venues (i.e., College World Series, Concerts, Festivals)
3	Federal and State Recreation areas	County seats/critical government administrative and communications facilities.	Railroad corridors	Critical Agricultural facilities (chemical manufacture and storage, grain and sugar beet facilities & feedlots).	Recreational area (Lakes and Rivers)	Public common use areas (parks, lakes, etc.)	Railroad Corridors	Interstate 80
4	Railroad corridors	Rurally located consolidated school districts.	High risk agricultural facilities (i.e. ethanol, fertilizer, chemical, multiple employees)	State and Federal Recreational areas.	The most rural public safety districts that are furthest away from their critical support infrastructures (travel time)	High risk commercial and Ag production facilities	Pipelines	Emergency Communications Response Unit (i.e. mobile)
5	10 miles on either side of Federal and State Highway.	Airports and landing strips.	Mission critical public safety communication and infrastructure	Secondary paved and unpaved roads.	Railroad corridors	FirstNet coverage in areas where cellular coverage does not exist.	Areas where current cellular and public safety radio communications reception is insufficient.	Recreational areas (i.e., parks, lakes, rivers)

Regional Priorities								
Priority	Southeast	South Central	Southwest	Panhandle	North Central Sandhills	Northeast	East Central	Tri-County
1	Federal and State Highways & five miles on either side.	Two miles each side of Federal, State and County paved roadways and railroad corridors.	State and federal highways with 10 mile corridor	Critical infrastructure (utilities, rail, pipelines, water supplies).	Locations without current Land Mobile radio and cellular coverage	State, Federal and County paved roadways and railroad corridors	Paved state, county and federal highways with coverage 5 miles on either side.	Full coverage, no dead spots.
2	Inhabited State Parks (with camping or living facilities)	Coverage where current Public Safety radio and cellular coverage do not exist.	Recreational areas with camping	Paved major roadways (State and Federal).	State, federal and county paved roadways	Commercial and agricultural industrial production areas	Waterways and lakes with camping and residential housing with a mile radius coverage for each.	In building coverage
3	Railroad corridors	Recreational areas with camping or housing areas.	Agricultural facilities	Critical Agricultural facilities (chemical manufacture and storage, grain and sugar beet facilities & feedlots).	Recreational areas (state, federal and commercially owned)	City and state recreational areas	Schools	Robust system for redundancy and prevent failovers
4	Lincoln area	Major waterways	Paved and non paved county roads	State and Federal Recreational areas.	Major agricultural infrastructure (Chemical, ethanol, feedlots, livestock, etc.)	Waterway recreational areas (rivers and lakes)	Railroad corridors	Paved federal, state, county highways and city streets
5	Missouri River valley	Manufacturing and agricultural production areas.	5 to 10 mile radius of villages, towns and cities	Secondary paved and unpaved roads.	Utility corridors (Pipeline and electrical)	Pipelines and pipeline pumping stations	Pipelines	Core infrastructure areas consisting of utilities and energy, and airport (i.e., OPPD, MUD, Epply Airport, SAC, and Ft. Calhoun Nuclear)

DISCUSSION ON WORKING GROUP SUBCOMMITTEE PROCESS AND RECOMMENDATION- NEIL MILLER

Director Casady said that a subcommittee consisting of Neil Miller, Russ Stanczyk, Bill Lundy, Lynn Marshall, and Collin Robbins were selected by the Working Group to review the information from the regional workshops. They were tasked to make a recommendation to the Working Group on the 5 stages of deployment for FirstNet in Nebraska that we would then forward on to FirstNet. Tom said that

after Neil's presentation the Working Group would be entertaining a motion to approve the recommendation and voting on it.

Sheriff Miller told the Working Group members that the committee spent a lot of time in their meeting working on their charge as they wanted to make sure to take everything into account. He said these are simply recommendations after looking at the material and the information that was received from the PET region workshops. Neil said they started to put it all together and things started to work. He said you will see as we go through this why we did what we did. The plan is the Working Group will vote to accept what we move forward from here. This is just a recommendation from the subcommittee and this certainly can be changed and discussed, so that we can come to a final product.

Neil presented the 5 phases for Deployment for FirstNet to have what they need to create a strategy for Nebraska. These are the 5 phases that the subcommittee recommends:

1. Interstate & Federal highways- This pertains to the Federal and Interstate system in Nebraska. Neil noted that when you use paved roadways like this many of the cities have a Federal or Interstate or state highway that goes through them. With that being said we can accomplish a couple of things with that. We take in the cities, communities, and infrastructure that we wanted to have covered just within this very first Phase. We weren't sure about how long deployment will take. It may be a 6 month project it may take a year, we just don't know. He added that we had a lot of discussions on information that we just don't have. They were trying to make recommendations based upon information that they thought we knew about. He said we need to understand that there is going to be roaming agreements that are going to have to be cut between FirstNet and carriers. We know that FirstNet has decided that it's going to partner with the carriers to deploy FirstNet. We don't know if that's going to be colocation of services within the same facility for towers or whether that means adding new infrastructure by the carrier that can be shared in the 700mhz band the LTE network for FirstNet. So based on the information the subcommittee had they came up with this plan. Gene Hand questioned how wide the coverage would be around the roadways. Neil said they anticipated that there will be a zone of 7 to 8 miles on either side of the Interstate and highways based on typical cellular tower range. Neil advised that this recommendation isn't written in stone and there might be a time where we may need to make updates. The map below shows the recommended Phase 1 Deployment.

Phase I Deployment

Interstate and Federal Highways



Note: The coverage areas identified here include a 5 mile radius from the highway centerlines.

2. State Highways- Phase II is all the State highways in Nebraska. Again, Neil pointed out, as you can see we are picking up a lot of the area of the State where we have population centers.

Phase II Deployment

State Highways



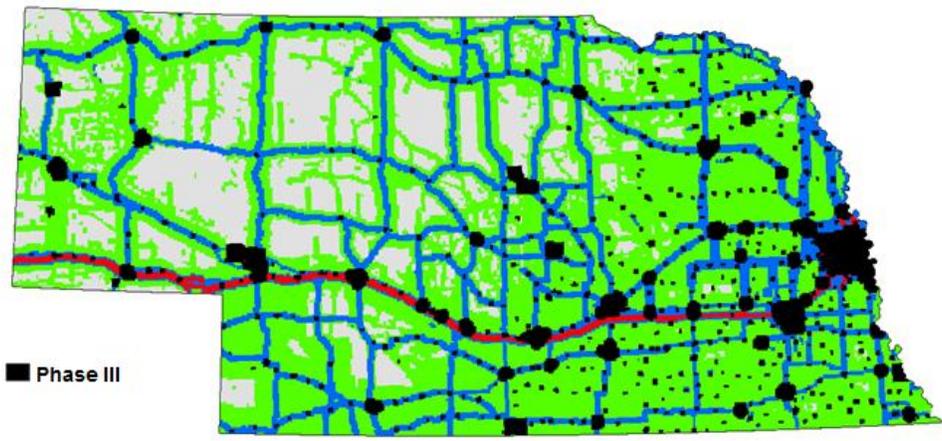
Note: The coverage areas identified here include a 2 mile radius from the highway centerlines.

3. Increase Coverage & Capacity within Population Areas- Neil said Phase III is going to be the phase that picks up the areas where we have uncovered population areas in the State. So if that 7-8 mile radius is not wide enough we are going to come back and look. He said we know we will need additional coverage and capacity with higher population areas and areas that need higher coverage and capacity to make FirstNet work for them. In Phase III we are planning to come back and fill those areas and picking up where we have population in the state not previously covered in Phases I & II and also adding capacity.

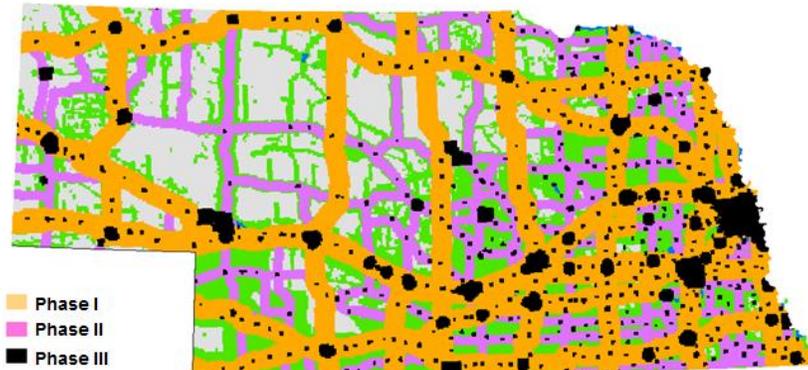


Phase III Deployment

Increase Coverage and Capacity within Population Areas



Phase I to III Deployment



Gene Hand commented that it appeared that a lot of the black areas on the map will be covered in the first two phases such as the Omaha area and a great deal of it will be covered in Phase I & II. Neil acknowledged that he was correct and Tom Cassady said this is about more than just coverage it is also about increased capacity. Neil said you are going to see that much of the Omaha area is going to be covered in Phase I & II because you have the interstate, other federal highways and state highways passing through the city. But we want to come back and look because we know we will need additional coverage and we know we will need additional capacity in those areas that have a higher population to achieve in building penetration.

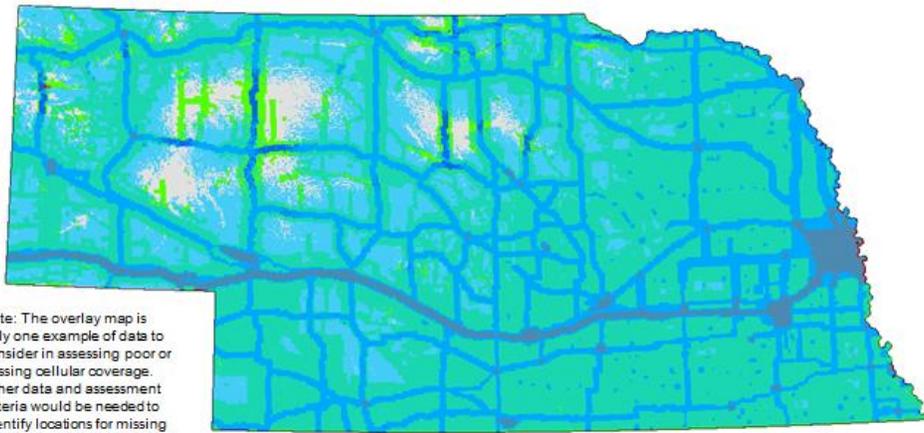
Neil said we wanted to make sure that when we did this we wanted to keep everyone interested in FirstNet. We know we have to come up with a plan so that at the end of the day we can have subscribers to have the revenue to build this out. That additional revenue comes from subscribers and excess bandwidth so carriers are able to lease the excess bandwidth which helps to pay the cost. The subcommittee talked about if we are going start on east or west end of the state. Looking at the map we thought that starting at the east end of the state would make more sense as it has the most data users. By doing it that way we accomplish a couple things, we get the people already using mobile data into the network and we also end up with getting the potential of having the largest number of subscribers immediately onto the system so that we can start to generate revenue to do the rest of the build out and bring this thing up. We felt pretty strongly about the fact that based upon the information that we received from the regional meetings that this plan made sense.

Neil said he thought you could flip a coin about the next two phases we are going to talk about and the priority they should have.

4. Locations without Current Land Mobile Radio or Cellular Coverage- Neil said it is important for us as we move forward with deployment to get maps from the Public Service Commission with the locations of land mobile radio or cellular coverage. If we could compare them to the map that the Public Service Commission has so we could pinpoint the areas that have no cellular coverage and make efforts to provide them with it.

Phase IV Deployment

Locations Without Current Land Mobile Radio or Cellular Coverage

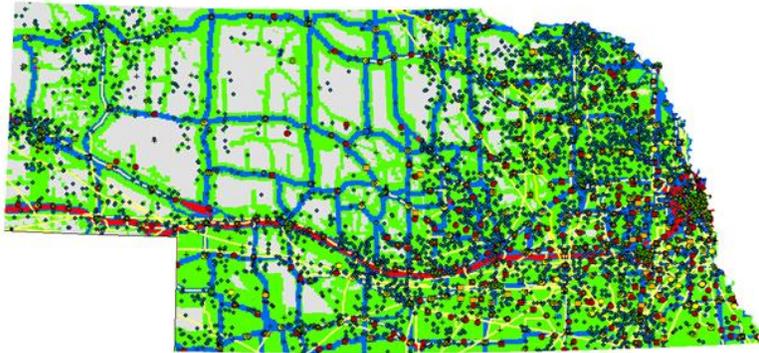


Cellular Wireless Coverage Estimate, FCC 2013

5. Major Critical Infrastructure, County Seats, Government Administrative, Communication Facilities. Give review and consideration to areas not provided coverage in previous priorities in Phases I-IV.

Phase V Deployment

Major Critical Infrastructure, County Seats, Government Administrative, Communication Facilities. Give review and consideration to areas not provided coverage in previous priorities in Phases I-IV.



Neil said basically Phase V is the clean-up detail. This is where we fill in the areas that we might have missed coverage that we need to address. Where are the locations we now need to add coverage to that we hadn't found? A few examples of facilities that are in this area would be the major infrastructure areas, government administration, anyplace where major events might occur. Key areas could also be agricultural facilities such as slaughtering facilities, ethanol facilities, feed lots, pipelines, electrical transmission areas have also been included in this phase. That was a big issue for subcommittee, that we needed to get covered the areas where there is nothing now. They had determined some coverage is better than no coverage. That was the thinking behind doing a State wide Coverage Objective map as well. Major Stanczyk stated that they tried to find a fair concept about how the deployment could take place. They didn't want to alienate or discount any information that was provided by PET regions. They saw an example from Missouri where they just went by population only. That's why we went with State highways so that we were fair and could cover everyone. Lynn Marshall stated again that they removed the word "high" from the phrase "high population centers" so that all the communities could be covered as it isn't just Lincoln and Omaha so it covers Scotts Bluff, Grand Island and North Platte, Valentine, etc. Lynn said we are trying to do this without a lot of information that we really could have used to define the regional and state priorities. Bill Lundy stated he wasn't able to attend the whole meeting due to a conflict, but from his review from the regional meetings personally he felt the subcommittee did a great job by not alienating the rest of the State. This is a great way to roll out to the whole state. This is the kind of a tool for people who don't use data now will, once they see it, will wonder how they got by without data. Neil Miller asked if there is any input from the audience and there was none.

Bob Wilhelm asked if when they were talking about phase 3 to increase coverage and capacity if they were also talking about enhancing the penetration into the buildings. Neil Miller responded with yes one

of things that came out the Tri County area was there need for in-building coverage which they have with their current broadband provider. That was very important to them that we get that so that is a part capacity and coverage. Tom Nutt is representing NACO and he wanted to add that they would be very pleased and he thought the subcommittee did a super job on this. That phase 4 adding coverage to areas where there is nothing will help tremendously. He said this was brought up at the South Central meeting in Holdrege and getting coverage in those areas is a big thing, he states it's very workable plan. Being on S.W.A.T calls and being in an area where there is nothing and being hours away from anything, this will be a very good perk for situations like that. MR. Nutt felt it was a very workable plan.

Tom Casady recapped from the last meeting Bob Wilhelm wanted us to come up with a Phased plan to present to FirstNet by September 30th. We appointed this subcommittee to look into that issue and make recommendations to us. We are at the point where we are going to be presenting the 5 phases to FirstNet. This is our outline and how we would like to see FirstNet deployed in our State.

VOTE BY WORKING GROUP ON RECOMMENDATION TO BE MADE TO FIRSTNET ON THE FIVE PHASES OF DEPLOYMENT FOR THE NETWORK IN NEBRASKA

Tom Cassady asked if there was a Motion to accept the recommendation of these 5 phases?

Gene Hand Motioned. Ed Toner Second. Roll Call vote: Casady- Yes, Daake- Yes, Hand- Yes, Lundy- Yes, Marshall- Yes, Miller-Yes, Nutt- Yes, Stanczyk-Yes, Righter-Dove- Yes, Weeda- Yes. Results: Yes- 10, No- 0, Abstained- 0. Motion Passed.

Tom Cassady said he would like to acknowledge the work of the subcommittee and said he had never really considered doing it this way and he doubted if any other state has really looked at it this way. This is kind of a novel approach, particularly covering those highway corridors and by doing so you are covering many of the population centers. Jim Weeda said that being from western Nebraska he thinks this is great. The conversation we had at the Panhandle regional workshop was the same thing. We have to be fair and look at population just to not only cover the masses but to get the project up and going financially but how do you do that? Our discussion back there was you cover the highways and you are good to go. Ed Toner commended the group.

NEXT WORKING GROUP MEETING

The next Working Group Meeting is set for ~~November 19, 2015~~ with the location to be announced. **This meeting has since been cancelled due to lack of agenda items.**

PUBLIC COMMENTS

There are no public comments.

ADJOURN

Tom Nutt made a motion to adjourn. Gene Hand seconded that motion

Meeting adjourned 1:50 P.M.