Public Safety Transition Team

(Statewide Two-way Radio Interoperability Recommendations)

The Nevada Communications Steering Committee (NCSC) was created over three years ago and has succeeded in bringing all responsible jurisdictions involved with public safety, two-way radio communication to the meeting table. An interoperability plan has been created and version 2.0 was adopted April 6, 2006. This plan was the work of a very dedicated, professional group. Recommendations have been made and set forth in this interoperability plan. The basis of this plan was to set timelines for technology to be standardized in accordance with APCO P25.

The convergence of technology into one platform does not always take into account the current technology investment already in place. This is the subject matter which we would like to bring to the attention of the Governor.

Geographically the State of Nevada is dominated by rural land masses with extreme topography changes and significant distance between population centers. The current communications systems of rural Nevada have little issue with interoperability. These systems are conventional and analog within the VHF (150 to 170 MHz) band. At this time gateways are used to interlink radio systems from different bands. These gateways are reliable and are usually inexpensive to deploy. The NCSC recommends using gateways state wide to link into each county or jurisdiction.

It is our belief that a better solution already exists. Last year the Nevada Highway Patrol was moved to the NDOT 800 MHz radio system, vacating the VHF (150 – 170 MHz) radio system. Utilizing this vacated radio system as a statewide mutual aid radio system would save the state valuable time and money. This system infrastructure could be integrated into every jurisdiction throughout the state, which would compliment the Core-Four plan created by Dennis Cobb. Instead of linking the radio systems throughout the state, gateways would only be necessary in urban areas of Las Vegas and Reno.

The NCSC plan, page #18, states that “Effective July 1, 2007 all mobile and portable (end user) radio equipment purchased shall be P25 capable”. Currently all equipment purchased through Department of Emergency Management (DEM) grant funding must be P25 Common Air Interface capable. The direction of standardized technology is good until it becomes uneconomical. The price of this technology increases the radio cost by at least a factor of four and establishes a limiting effect on the rural counties.

There are two points that need to be discussed:

1) Due to the cost, mandating rural jurisdictions to purchase this type of equipment limits there ability to put a life saving tool into the hands of those who need them the most. The P25 capable equipment is 3 to 4 times the cost of the equipment that they are currently using.
2) Replacing all of the conventional analog radio equipment in the state with digital P25 stations would make all existing equipment obsolete. There is currently no plan in place to discard this extensive infrastructure and valuable resource.

Digital technology is unnecessary and cost prohibitive for rural areas. Digital technology makes better sense for urban locations due to the smaller geographic areas.

The NCSC Interoperability plan is definitely a step in the right direction. However, it is in need of revisions. For instance, NCSC plan, page 20 reads, "Effective July 1, 2011 all radio systems and equipment in the state, regardless of operating frequency or the system it is purchased for, shall be P25 capable" This statement puts the cart in front of the horse. It should read "Effective July 1, 2011 all radio systems and equipment in the state, regardless of operating frequency or the system it is purchased for, shall be narrow band compliant". The NCSC plan jumps from the current mandate by the FCC to narrow band and goes directly to P25 capability. The process of narrow banding is very import to the growth of radio communication because it allows for more radio bandwidth to be reused. Many agencies are having trouble finding the frequencies it takes to grow there current radio systems. Narrow banding not only allows bandwidth for growth but 90% of the equipment being used in the state can be reprogrammed to help in this process.

We believe these recommendations can truly eliminate a majority of the interoperability concerns this state has as well as set a steady path to the future.