

Oregon SIEC Policy Action #10

When originally designed, the need for capacity for a statewide system coupled with the shortage of available VHF frequencies and other cost factors led to a conceptual design for the Oregon Wireless Interoperability Network (OWIN) that proposed a hybrid system using both VHF and 700 MHz bands for statewide coverage. Since that original proposal, new information available led OWIN staff to direct an additional study of 700 MHz coverage on the varied terrain of Oregon. The results of that study, now being shared nationwide, point to the efficacy of a single 700 MHz system for OWIN. **In light of this information, the Oregon State Interoperability Executive Council recommends that the OWIN Business Case be updated to reflect this groundbreaking information and address how this new design impacts potential local and regional participation in the OWIN system.**

To address history, the OWIN Business Case first published in January, 2007¹ originally recommended a solution for OWIN using both the VHF and 700 MHz bands. In part, the report states:

“This hybrid approach has several advantages for the state:

- It provides a high level of interoperability with local jurisdictions’ existing public safety radio systems. Where local radio infrastructure is primarily VHF, the state will provide VHF coverage, and where local radio infrastructure is primarily 800 MHz, the state will provide 700 MHz coverage.
- The hybrid design overcomes the fact that there are not enough licensable VHF frequencies to provide the required level of radio coverage without unacceptable signal interference.
- The hybrid design eliminates the significant cost of constructing enough additional transmission towers to blanket the entire state (especially the rural and wilderness sections of the state) with signal in the 700 MHz frequency range.”

New information available in 2008 led OWIN staff to direct additional research and VHF, coverage characteristics gained or lost due to testing in Oregon to validate whether an all 700 MHz digital radio system for the OWIN network would provide similar coverage characteristics to the existing VHF radio systems, taking into consideration several engineering issues including noise floor for interference, and other technical issues. The research determined and was reported to the State of Oregon and the SIEC that the OWIN network could be built using only the 700 MHz frequency band and eliminating the dual-band design previously recommended.

The new recommended design conflicts with the previously published and accepted recommendations of the OWIN Business Case. Therefore, the SIEC requests that an update to the OWIN Business Case be completed and presented to the SIEC for

¹ The “OREGON WIRELESS INTEROPERABILITY NETWORK (OWIN) PROJECT Business Case:-A Statewide Public Safety Radio Network Deliverable 12-A” , prepared by: Federal Engineering, Inc., January 23, 2007.

consideration and approval. The updated OWIN Business Case will explain the change in assumptions, findings and financial risks and benefits from the original dual band design to the preferred single band design for the OWIN system. The update to the OWIN Business Case should also address how this new design impacts potential local and regional participation in the OWIN systems.