



Interagency Interoperability Oversight Group



Central Oregon Interagency Interoperability Radio Pilot Project Summary Report

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Background

In July 2009, the IIOG visited Central Oregon to better understand field user issues and requirements for interoperability. Based on conversations with end users and local agency service providers the IIOG concluded that there might be opportunity for shared radio services and integration of the radio system serving the Central Oregon area. The IIOG anticipated opportunities to reduce the number of facilities, to provide services more efficiently, and to enhance functionality.

The IIOG decided to use the Central Oregon location as a pilot for analyzing the potential for a shared-services model for radio communications support and operations to contain costs. The IIOG facilitated and managed funding to obtain contract support for independent analysis of the existing systems and recommendations for improvements through consolidation and integration.

Project Summary Results

The results of the contractor analysis fell into two primary categories:

- Potential savings and efficiencies through integration and consolidation of existing agency radio networks was limited;
- Based on user requirements surveys the major improvements to radio services in the area would come from expanding and enhancing the existing systems.

The analysis validated that there are a number of opportunities for program improvement through continued partnership among agencies in such areas as sharing of frequencies/spectrum, technical support personnel, and infrastructure. At present the BLM and FS do make efforts to share frequencies and some tower sites. However, sharing of equipment and infrastructure takes place on a limited basis.

The analysis concluded that the anticipated reduction in the number of radio towers and other potential savings outlined in expected deliverables was not possible. Limited opportunities for FS and BLM to share tower space and coverage areas were discovered due to the geographic nature of the area and designated agency areas of responsibility.

The principal recommendations from the contractor centered on providing additional coverage and reliability for current agency users. Analysis of current and future technologies to enhance legacy radio systems provided useful insights for continued service delivery improvement. Specifically, the study generated several in-depth discussions regarding the complexities of managing trunked radio systems, interoperability and spectrum use issues, radio dispatching challenges, law enforcement radio requirements, as well as the current disparities between the FS and BLM regarding the use of Voice over Radio and Radio Control over IP Technologies, with the FS deploying and maintaining most of those assets in this area of operations.

The project generated observations and lessons learned that will be valuable to radio system planners and managers in Central Oregon. These include:

- Agency radio managers and technicians understand user business needs and system capabilities necessary for future collaboration to develop recommendations to improve the current system.
- Setting realistic expectations with users and providing contract support entity with clearly defined requirements is critical in order to obtain usable recommendations for system improvements. Radio technicians and field managers in both BLM and FS are effectively managing the current radio systems.
- Future interagency cooperation is possible through enhanced cooperative agreements among participating agencies.
- Customers identified requirements need to be reviewed and vetted for feasibility before detailed recommendations are developed.
- Failure to provide dedicated project management for the contract resulted in lack of efficient communication and oversight.
- The scope of the project was overly ambitious. Focusing on specific issues, such as enhancement of the radio infrastructure, may have produced more realistic results.

Discussion and Conclusions

The Central Oregon study was a useful pilot effort to determine the issues, options, and feasibility of integrating or combining multiple radio systems for efficiency and effectiveness. At the onset of the effort the IIOG assumed, or hypothesized, that significant opportunities for savings existed. The study concluded that those opportunities did not exist, but that there are a number of smaller scale opportunities to make program improvements through partnerships between BLM and FS. The study also concluded that users had expectations for higher service levels than the agencies can provide with existing resources.

The government project team determined that the recommendations for system enhancements provided by the contractor were outside the capability of the agencies to provide. A number of factors contributed to the failure of the study to provide results and recommendations expected by the IIOG:

- A lack of clear understanding of agency requirements by the contractor was apparent. In particular, the importance of interoperability and interface between federal and non-federal entities was not fully understood or appreciated by the contractor. As a result, recommendations did not address that critical requirement and opportunities for improvement through partnerships with state, city and county organizations were overlooked.
- The study was inadequately scoped and defined, resulting in confusion and miscommunication between the government and the contractor.
- The intent and expectations of the study were inadequately communicated to the user and management communities, resulting differing expectations – particularly on the part of users who were expecting to see service expanded, rather than existing service provided more efficiently.

Although the expectations of the IIOG for significant savings from integration and consolidation were not met, and despite the difficulties encountered with scoping and project management, a number of valuable results were generated by the project. The information and lessons learned obtained through this study will assist local interagency radio and program managers to:

- Plan for and implement future enhancements to the existing system including needed additional coverage areas as identified through customer surveys conducted by the contractor (see attached independent contract report summary).
- Understand user requirements that were validated and enhanced.
- Recognize opportunities for small scale partnerships and improvements as identified.

Follow On Actions

- Continued review of attached independent contract support results by interagency Central Oregon Radio government stakeholder group to begin collaborative work highlighted in this report (e.g. spectrum use, interoperability, new technologies, coverage areas, dispatching capabilities, etc.).
- Sharing of the study results with the DOI and FS radio management communities
- Local actions and initiatives to continue to improve radio service delivery in Central Oregon

Recommendations

- An investigation of capabilities, limitations and benefit to the customer base regarding analog to digital migration needs to be done on an agency and interagency basis. This analysis should include coordination with non-Federal partners and consideration for their ability to migrate.
- Policy should be addressed both in DOI and FS to ensure that prior to any new facility construction or major upgrades, existing local area opportunities for sharing be considered.
- Should any future analysis be conducted, all stakeholders and levels of management need to be involved from the beginning. However, much that has been learned from this analysis can and should be used prior to initiation of any future study.