



DIGITAL COMMUNICATIONS SYSTEM REPLACEMENT TALKING POINTS

April 6, 2015

Clackamas County, Oregon

WHAT?

The replacement of the 800MHz public safety analog communications system which serves Clackamas County with a digital communication system

WHY?

The age of the current analog system and changing technology makes replacement of the existing analog public safety communication systems necessary

HOW?

- Voter approval of a 10 year General Obligation Bond – County Based; or
- A borrowing repaid through a per agency assessment – Local Based

WHEN?

Determine financing by May 2016

Targeting a project completion date of January 2019

WHO?

C800 – Clackamas 800 Radio Group, an ORS 190, is comprised of most of the public safety providers within Clackamas County. C800 owns and operates the public safety voice and data radio communication systems serving Clackamas County.

WHOSE ISSUE IS THIS?

- This is not solely a police issue or solely a fire issue
- This isn't a Clackamas County issue or a Washington County issue
- This isn't a City or a County issue
- This isn't a fire district issue or the Sheriff's issue or the city police department's issue
- **This is a public safety issue for all the citizens**
- This is about one system, one system that works, one system that works every time!
- It works regardless of where you are in Clackamas County, regardless of whether you are at home or at work or at play or travelling the roads
- The public safety radio system is at the core of a strong, unified public safety response system

System Replacement Goals

- v" Improve communications systems performance
- v" Replace existing equipment with scalable and upgradeable digital technologies
- v" Dramatically reduce the risk of any single point of failure causing a catastrophic system failure
- v" Implement a Standards Based Communications system
- v" Interconnect C800/WCCCA systems with adjacent systems
- v" Appoint a citizen oversight committee charged with reviewing the expenditures, progress, and outcomes of the project
- v" Operations and maintenance to be funded through user fees

Communication System Replacement Drivers

Age and/or Technological Obsolescence

- Components in the current analog system, installed from 1992 to 2002, have reached or are nearing their end of life and are no longer supported
- System technology has changed over the past 20 years and system components are becoming obsolete. **Is your cell phone 20 years old?**
- Replacement part availability is quickly becoming dire.. C800 has had to turn to the Secondary Markets (eBay and other resellers)
- This system is critical to the daily operation of public safety agencies in Clackamas County. The system handles an average of 40,500 transmissions a day to meet the demands of public safety for our citizens.

Spectrum Efficiency and Interoperable Standards

- In response to an ever-increasing demand for more radio spectrum the Federal Government has revised the Public Safety and Commercial Band plans introducing digital.
- Based on findings from the 9/11 Commission the Federal Government has set standards for interoperable communications between all governmental agencies nationwide.
- To align with Federal standards the State of Oregon is requiring all public safety communication systems to be interoperable
- The analog technology we are using today is no longer available.
- APCO (Association of Public Safety Communications Officials) created “P25” a standard for interoperable digital communications now fully supported by radio manufacturers.

Regional Partnerships

- C800 and WCCCA (Washington County Consolidated Communications Agency, an ORS 190 organization, serves a like mission to C800 in Washington County) share combined communications systems within Clackamas and Washington counties.
- These systems have been developed as one fully integrated and interdependent system since 2002 when C800 and WCCCA jointly developed wide area communications plan for Public Safety.
- C800 / WCCCA field users are dependent upon overlapping coverage from like systems within the adjoining counties. This regularly supports joint operations in Washington, Clark, Clackamas, and Multnomah counties.

Grant Opportunities

We have taken advantage of over \$4Million in grants over the years to build out and solidify the infrastructure of the system (along with numerous individual agencies who have taken advantage of grants to fund radio purchases) and we will continue to seek those opportunities.

OPTIONS:

The C800 Board of Directors Requested That a Series of Options be prepared to analyze the Best Solution for the Project. These ranged in cost from \$80,311,371 to \$34,983,133.

Proposed Solution:

A new P25 digital radio system, including the associated microwave transport system that has equal coverage and performance to the current system and maintains current interoperability. Further it expands coverage: a) to meet “portable on the hip” usage; b) to improve in-building usage; c) and additional coverage to serve areas outlined by user surveys and population growth. Excludes subscriber radios which remain an agency responsibility.

Definition: A like for like replacement with the addition of **five** additional sites to make up for the performance difference between analog and digital. *Note: The current system is designed around mobile coverage and in the urban areas “portable at the head” coverage.* Addition of **six** additional site for the portable at the hip coverage and the addition of **three** additional sites for enhanced in building coverage (total of fourteen added sites). This will provide the complete system upgrade and expansion as outlined by the Regional Radio Partnership grant study refined and delineated by C800 / WCCCA staff.

Pros: Meets the conditions outlined through radio system user interviews and provides a system to provide the current and future needs (10-15 years) for C800 radio system users. Provides the full expanded coverage particularly in south Clackamas County as outlined in radio user surveys - Clackamas Drainage, Lolo Pass. In building coverage improvements within all designated urban reserve boundaries, which in turn will improve portable coverage and expand coverage in general particularly in south Clackamas County. SW Cities will be improved and as a result SW County coverage will also improve.

Alternatives Added to the Above:

SMART phone application to allow access to the system:

Definition: An application that can be added to a SMART phone to allow the SMART phone to access and utilize the C800 radio system. Though not recommended for mission critical use due to the availability and reliability of the cell networks it is an option for some administrative, nonpublic safety personnel or potentially for volunteer use prior to being on scene.

Replace Current Paging System:

Definition: The user agencies (primarily fire) utilize a variety of paging systems to notify personnel of routine and emergency matters. Some of the systems are common carrier, cell phone, VHF, and 900MHz. Most of the equipment is outdated and no longer supportable. This proposal is to provide an 800MHz paging system to

upgrade to current technologies, reduce maintenance, minimize CAD interfaces, and improve performance.

Post Warranty support:

Definition: This is a one-time upfront payment for extension of manufacture warranty support for the radio system. This includes: technical support / infrastructure repair – depot maintenance / advanced replacement upgrades – i.e. maintains a level of spares. *Note: In order to properly maintain the system C800/WCCCA must subscribe to this service either annually or by this pre-purchase option.*

System refresh – Equipment and Software Upgrades:

Definition: As with all electronics there is a constant need to periodically upgrade equipment and keep software current. This proposal is to purchase this service upfront for a substantial discount. The service provides for equipment and software upgrades every 2 years for a 10 year period.

Total Cost As Proposed: \$53,592,500 // 13.7¢ per \$1,000 of assessed valuation



For More Information Contact:

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