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Instructions to Bidders

APPENDICIES

1 Instructions to Bidders

1.1 Introduction

Cowlitz 911 invites manufacturers and their dealers to offer proposals to provide a comprehensive response to this Request for Proposal (RFP). This RFP states the overall scope of products and services desired, specific functionality as well as desired vendor qualifications.

1.2 Response Instructions

The submitted proposal must follow the rules and format established within this RFP. Adherence to these rules will ensure a fair and objective analysis of all proposals. Failure to complete any portion of this request may result in rejection of a proposal.

1.3 Contact with Cowlitz 911 Public Authority Employees or Board Members

To ensure a fair and objective evaluation of all proposals, vendors are required to submit all inquiries to the designated project contact noted below. Unauthorized contact with Cowlitz 911 Public Authority employees or Board members regarding the contents of this RFP will result in a disqualification of the vendor bid. The designated point of contact (POC) is:

Deanna Wells
I.T. Vendor Technical Manager- 911 Coordinator, RPL, CMCP, CPE
312 SW 1ST Avenue
Kelso, Washington 98626
360-431-4712
wellsd@co.cowlitz.wa.us

1.4 Assess RFP Documents

Before submitting a proposal, vendors shall examine the specifications in order to understand all existing conditions and limitations. The vendor shall indicate in the proposal the total sum to cover the cost of all items included in the RFP.

1.5 Costs of RFP Preparation and Submission

Each bidder shall be responsible for all costs incurred in order to prepare and submit their response to this RFP.

1.6 Performance Bond

There is no performance bond requirement for this procurement

1.7 Proposal Review

All documents submitted as part of the vendor's proposal will be deemed available to all parties subsequent to the bid opening date and time designated on the front cover of the RFP. All applicable information will be subject to public disclosure in accordance with the Freedom of Information Act.

1.8 Proposal Submission

All bids must be in a sealed envelope marked "RADIO DISPATCH CONSOLE SYSTEM BID".

THREE COPIES OF THE BID PROPOSAL ARE REQUIRED. Proposers must also include a soft copy of the proposal on a thumb drive.

Bids will be awarded at the next regularly scheduled Cowlitz 911 Public Authority Executive Board meeting after a complete evaluation of each bid has been completed.

1.9   Delivery of Proposals

Proposals must be delivered by the date/time specified in Section 1.12 and to the address listed below. It is the sole responsibility of the bidder to see that their proposal is received on time. Any proposal received after the proposal opening date and time shall be disqualified from consideration and returned to the vendor unopened. Proposals shall be submitted to:

Cowlitz 911
Deanna Wells
I.T. Vendor Technical Manager- 911 Coordinator, RPL, CMCP, CPE
Hall of Justice - Basement
312 SW 1ST Avenue
Kelso, Washington 98626
360-431-4712

1.10   Site Inspections

A site inspection will take place on June 17, 2019 at 10:00 AM. Site inspections are not mandatory however the bidders complete understanding of the project will be evaluated therefore site inspections are strongly encouraged. Site inspections will only be held during the dates and time listed in the project timeline   (Section 1.12) and must be scheduled in advance with the Cowlitz 911 Public Authority POC. During site inspection, bidders may only ask questions concerning the existing system and physical facilities. Bidders are not permitted to ask questions concerning the contents of this RFP during the inspections.

1.11   Questions

Bidders must submit any questions in writing via email to the designated Cowlitz 911 Public Authority POC, only until the date and time listed in the Project Timeline (Section 1.12). Questions submitted after that date/time will not be accepted. Verbal questions are not permitted nor will they be answered. Answers to any written questions will be published as an Addenda to this RFP.

1.12   Project Timeline

Site visit   06/24/2019 at 10:00 AM PDT
Deadline for Questions: 07/01/2019 at 4:00 PM PDT
Proposals Due/Bid Opening: 07/19/2019 at 4:00 PM PDT

1.13   Right of Refusal

The Cowlitz 911 Public Authority reserves the right to reject all RFPs in their entirety or to select certain applications from the RFPs

1.14   Evaluations

Evaluation of the proposals is expected to be completed within 60 days after the bid opening date. An evaluation team will evaluate proposals on a variety of quantitative and qualitative criteria. Any award made as a result of this bid will be determined through a best value analysis. The selected proposal shall provide the most cost-effective approach that meets or exceeds the stated requirements. The lowest price proposal will not necessarily be selected.

Cowlitz 911 reserves the right to a) reject any or all proposals, or to make no award, b) require modifications to initial proposals. Cowlitz 911 further reserves the right to excuse technical defects in a proposal when, in its sole discretion, when such excuse is beneficial to the Cowlitz 911 Public Authority

2   Vendor Requirements

2.1   Bidder authorization

Vendor must be the manufacturer or an authorized dealer and service center in good standing for the proposed equipment and must be able to provide confirmation if requested.

2.2   Bidder financial Stability

Vendor must be prepared to show they are financially capable of supporting the proposed system and subsequent 24/7/365 emergency service.

2.3 Proposal Response Format

The RFP response must follow the following submission format.

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SECTION 1 - Brief Executive Overview

SECTION 2 - Introduction of the prime vendors company including history, qualifications, experience, main line of business, and how business is organized (corporation, LLC, partnership, public, private, etc.).
- Provide a listing of all proposed subcontractor(s) including their history, qualifications, and experience, main line of business, and how business is organized.
- Statement confirming the prime contractor is familiar with and has worked with each subcontractor.
- A brief description of at least four (4) similar projects that included each the subcontractor, their scope of work, the start date and the duration of each project.
-

SECTION 3 - Statement of Work
- Describe the work to be performed by the prime vendor by identifying all

major project tasks and milestones.
- Describe the work to be performed by each subcontractor by identifying all major project tasks and milestones.
- Identify all project tasks by their associated subcontractor.
- Identify the responsibilities of the vendor
- Identify the responsibilities of Cowlitz 911.
- Provide a complete and detailed project timeline including all phases of the project from time of award to time of system acceptance.
.

SECTION 4 - Point by Point Response

A point by point response shall be presented in this section using the compliance matrix in Appendix B which will be incorporated in the final contract. Each item must be marked as either:
- Comply
- Comply w/Exception
- Cannot Comply
- Proposed Alternative

Additional or explanative information must be provided for any response other than Comply.

SECTION 5 - Technical System Information
- Provide a clear and detailed description of the system(s) being offered.
- Include a detailed itemized list and quantities, in a matrix format, of all equipment supplied and their intended install location.
- Include equipment catalog or specification sheets for all proposed equipment.
- A simple block diagram illustrating all major system components

SECTION 6 - Vendor Project Manager and Team Information
- Provide the name and project experience of the assigned project manage if so awarded.
- Provide the name and project experience of all vendor employed personnel associated with this project if so awarded.

SECTION 7 - Warranty and Maintenance

Provide an outline of the proposed minimum of one (1) year warranty after acceptance to include:
- 24/7/365 emergency service, parts and labor to include:
- Fifteen minute response by phone,
- Sixty minute arrival at site
- 8-5 normal service, parts and labor as needed,
- Definition of emergency and normal service categories and conditions for response
- Confirmation that subcontracted service providers for warranty are the responsibility of the awarded vendor,

- Software updates included if required,
- Provide proof of vendor employees or subcontractor employee's technical expertise, and technician's product certification who will be responsible for maintaining the console system.

SECTION 8 - List of References

- Provide a list of three (3) references with systems having similar requirements of this solicitation. Include a brief description of the system, approximate date of acceptance, and contact name and telephone number of system owner / Supervisor.
- FOR EACH SUBCONTRACTOR - Provide a list of three (3) references with systems having the similar requirements of this solicitation. Include a brief description of the system, approximate date of acceptance, and contact name and telephone number of system owner/ Supervisor.

SECTION 9 - COSTS

Use the attached pricing summary pages in **Appendix C** for submittal of pricing

- Pricing shall include all costs for a complete, turn-key system from a single vendor.
- On separate page please list all included items, at a minimum; quantity, model number & description of each item to be included.
- List major services such as installation, licensing, systems engineering, program management, training, etc., each shall be clearly identified as included.
- There will be no additional costs added after proposal submission for not included items; including equipment and services, unless there is a change in scope or requirements. **Any additional equipment or services not specifically included in this agreement that are required to provide a complete and acceptable system shall be provided by the contractor without claim for additional payment.**

- Extended Maintenance Pricing will be provided for 24/7/365 routine and emergency service, repair parts, and equipment as well as software and security maintenance and updates. Pricing will be provided on a per year basis and combined as 4-year package for years two through five, as outlined in the price pages.

STATEMENT OF WORK

1.1 Existing Dispatch Consoles Overview

The Cowlitz 911 Dispatch Center is located in the Cowlitz County Hall Of Justice building located at 312 S.W. 1st Avenue, Kelso, WA 98626

All public safety agencies in Cowlitz County are dispatched from this location. There are currently six (6) Motorola Gold Elite consoles located there. The radio systems used by Cowlitz 911 are Motorola VHF conventional systems in a simulcast configuration for countywide coverage. In addition to dispatch functions each dispatch position provides paging signaling, communications with local City and County Public Works, interoperability with adjacent counties and Region and other alerting functions. Subscriber units on the radio system are purchased, owned and maintained by each of the agencies so they are a mixture of multiple manufacturers with differing features. The proposed console system will include evaluation of how each proposal maintains the current subscriber unit features and how well the proposed console system will perform when Cowlitz 911 transitions to a new (possibly P25) radio system.

In the event of console failure the current procedure is for dispatchers to revert to handheld radios to link with the system repeaters.

<u>**USER AGENCIES**</u>

Castle Rock Police	Fire District 2	Cowlitz Co. Sheriff
Fire District 3	Fire District 1	Fire District 5
Fire District 6	Kalama Police	Longview Police
Kelso Police	Longview Fire	Woodland Police
Clark County Fire		

Motorola Gold Elite consoles are no longer in production and spare parts are in short supply. It is the intent of Cowlitz 911 to replace the existing consoles with state of the art IP based consoles that will be compatible with future upgrades to the radio systems which will, most likely, be digital P25 technology based. It is imperative that the new consoles provide all of the existing features of the Gold Elite consoles as well as the features common to P25 radio systems. New dispatch center furniture is currently on order and is being replaced separately. Replacement consoles should meet the advanced features of the P25 standards.

A new dispatch center is planned for the near future. New Console furniture is currently on order. The plans for the new dispatch center include eight (8) work station positions. **Proposal pricing should be for 8 console positions.**

The Proposer shall detail their strategy for the cut-over phase of the console project that will allow for **the least impact to continuous dispatch operations** as consoles are replaced and operations transitioned to the new radio system.

The current console system can communicate on the regional frequency with four adjacent counties through the CRESA 800 MHz system. Cowlitz 911 can transmit and

receive directly on the Lewis County, Wahkiakum and LERN, Oregon State Patrol, Columbia County radio systems and they can do the same on the Cowlitz system. Clark County has transmit and receive capabilities on the Main and Control 1 Cowlitz frequencies. **This capability must be retained in a new console system.**

Ultimately, when Cowlitz 911 replaces its radio system the new consoles must seamlessly be connected to a new P25 radio system(s). Proposers must detail any risk to successfully performing these activities as well as defining any additional equipment that may be needed for the interim use of the new consoles with the existing system.

Proposers shall include as part of their dispatch console solution, fallback mobile radio control station options that will allow maximum dispatching capability given the loss of the connectivity to the proposed radio system core. Those solutions that provide a "smart" (i.e. data/IP) interface between a *locally* connected control station and the console (that allows PTT ID recovery, for example) are preferred.

1.2 New Console System Compatibility
Radio system and dispatch console equipment manufacturers may implement their consoles and console interfaces using proprietary or licensed technology. Cowlitz 911 is aware that functional capabilities beyond the open, standards-based ISSI and CSSI feature sets may be available in the proprietary domain. Cowlitz 911 will evaluate to carefully weigh the benefits and potential risks of each Proposer's proposed console solution, based upon an open or proprietary interface standard. The critical focus of this evaluation is based upon two primary concerns: It is also understood that some existing subscriber units may not be capable of utilizing the features of the new consoles due to their age and functional capabilities.

    1. Impact on interoperability with cross-linked regional (partner) radio systems (PSAP to PSAP communications)
    2. Impact on radio-based calling features and functionality in a multi-Proposer radio subscriber fleet

Proposers shall present a comprehensive list of features supported by the proposed dispatch console solution. Proposers shall disclose any enhanced dispatch capabilities or features that utilize proprietary technology that would preclude P25 compliant radio subscriber units of mixed manufacture from exploiting the capability or function. Operational benefits or advanced capabilities made possible by exploiting such proprietary technology shall be clearly stated and presented by the Proposer for comparison and consideration. Likewise, any limitations associated with that option on other equipment shall be disclosed.

Appendix A lists all of the features of the Motorola Gold Elite Consoles being replace. Not all of the listed features are currently in use since the existing radio system is conventional.   The proposed console system must replicate the listed Gold Elite functions.

1.3 Dispatch Console Configurations

For purposes of this RFP, consoles should be proposed that are PC-based, with a LED screen or touch screen and mouse and local interface equipment as required to support interface with dispatcher audio equipment, to include administrative PSTN /PABX telephone lines. This shall include the ability to support dual audio jacks, as well as dual foot pedals for user training or manager monitoring purposes, and special TX buttons for ADA accommodation. Dispatch console equipment shall be powered from 120 VAC at 60 Hz.

The console computer operating system is preferred to be Windows 10 (latest available version) and shall be certified by the Proposer to be stable and capable of being supported on both Proposer-supplied console workstation PC's, as well as PC's that may be supplied by Cowlitz 911.

Each console shall support a system of managing talk group and channel resources that allows creation of multiple "folders", "pages", "screens" or their equivalent, with each representing a pre-established operational configuration. Dispatch personnel shall be able to select a presentation that displays their operational configuration. Selecting an alternate presentation shall have the console position reconfigure itself without further operator intervention. Within each presentation, the system shall provide a display of pre-configured channel and talk group representations or "modules". Proposers shall state how many channel or talk group modules may be configured for each folder. Proposers shall explain how many expanded (open) talk group modules can be displayed on one screen at any given time using graphic illustrations.

Each module shall provide the following minimum capabilities:
- Individual volume control, with settable minimum volume levels to prevent missing calls in the unselected audio
- Individual volume control, with settable minimum volume levels to control the Emergency Alert audio level
- Individual muting control, with unselected resources being capable of muting
- Busy indication when a module is in active use, with a parallel display of status at the other consoles in the system
- Calling unit radio ID and alias display
- Calling unit call history
- Encryption ON/OFF selection (optional)

The console shall permit the operator to monitor call activity using up to four (4) separate speakers; one (1) providing select audio and the others with unselect audio. The console shall permit the Dispatcher to route any module to any speaker. The successful Proposer shall work with PSAP and Cowlitz 911 staff to design the system screens, modules, and configurations to produce an approved configuration scheme that Proposer will be responsible for enabling in all dispatcher consoles.

1.3.1 Proposer Integration Requirement with Existing PSAP Technology

Proposers should use the site visit to capture all PSAP technologies for interfacing. *The Proposer shall successfully integrate its radio and dispatch console solution to all these various systems. This includes disclosing all CAD interface features available via API licensing and associated licensing cost(s). Cowlitz 911 will not accept any reduction in current operational capabilities or functionality due to Proposer inability to successfully interface and integrate into critical PSAP technologies.*

- There is an alarm on the existing radio consoles that activates a blue flashing light in the lunchroom, this is used to get a dispatcher back to the floor in a hurry when the dispatchers become overwhelmed and need an employee to respond to the dispatch floor that might be on a break.
- There is a NAWAS phone on the wall in the back computer room, there is two way radio communications from our dispatch console to the state DEM office
- There are several alarms that are monitored in the Dispatch Center that are interfaced with our radio console, alarms for the courtrooms, Records, and the auditor's office will have to be maintained on the new consoles. There are also video monitors controlled at the consoles that must be maintained.

PSAP Phone System	Emergency Call Works for 911
CAD, Mapping/GIS	Hexagon Intergraph CAD 9.2 transitioning to 9.3 MR6 in January 2020
Fire Station alerting	Zetron Model 25
Call audio logging and recording	Stancil logging recorder which was upgraded in 2017 48 channel logging with 6 instant recall terminals
VoIP Telephony	911 lines Emergency Call Works
Dispatch Consoles	Motorola Gold Elite
Backup Dispatching	Standalone, co-located mobile radio control stations (not under IP, function tone, local, or DC remote control, from dispatch console operator positions)

1.3.2 Radio Based Fire Station Alerting (FSA)

Cowlitz 911 alerts fire stations to active calls using a Zetron Model 25 system which is integrated with the Hexagon Intergraph CAD system.

Replacement of the existing VHF paging infrastructure is not a requirement of the RFP, however, the Proposer shall study the existing system, and include as a cost option within their proposal, any recommendations or proposals for an optional FSA system

enhancement or FSA replacement. Cowlitz 911 envisions this could potentially be based upon, but not limited to, the following:

- General industry advanced in FSA technology
- Inherent capabilities in a future 700/800 P25 TDMA radio system and selective calling capabilities as backup or redundant connectivity
- Use of P25 pagers
- Benefits from expected enhanced coverage (VHF and/or 700/800 MHz) of any radio system design
- Commercial wireless carrier data service as backup or redundant connectivity

There are future plans to regionalize the Cowlitz CAD system with Clark County CRESA dispatch which uses a Locution Systems paging system.

1.4 Dispatch Console Operational Capabilities
Dispatch consoles shall be capable of being programmed to support communication with one or more user entities, which could include trunked talk groups, conventional channel resources, or other console positions in intercom mode (both co-located or at alternate remote locations). Console equipment shall also provide the capability to manage individual calls, display field radio user status messages and generate SMS-style text pages to field users. Consoles shall also provide for auxiliary input/output (I/O) controls for controlling equipment either locally or at remote locations. Specific dispatch console capabilities that are required for system operation are shown below:

1.4.1 Console Priority
The dispatch console shall have multiple selectable priority levels and must be capable of being assigned highest priority on the radio system.

1.4.2 Parallel Operation
The dispatch console must support listening to BOTH radio and additional operators in parallel. Ensures no audio will be unheard when the console take-over feature is enabled.

1.4.3 Radio Unit PTT ID
The dispatch console operator position shall display the radio subscriber unit ID on its associated talk group during trunked operation and on a channel during conventional operation. The calling unit ID shall also be passed via CAD interface to the CAD system for display. The ID shall be displayed in alphanumeric format based on the assignment of names or aliases. **NOTE: Radio units are purchased by the user agencies. Not all of the current radios have the capability of generating user ID.**

1.4.4 Encryption (optional)
The dispatch console system shall support end-to-end digital voice encryption as an option. This encryption shall be contiguous from the dispatch console to the user radio, with no clear audio available at any intervening location Proposer will detail their process for clear recording of encrypted traffic in the voice recorder.

1.4.5 Radio Disable

It is highly desired for designated, authorized staff to selectively disable or enable an individual radio based upon its subscriber ID number. This feature should be enabled based on secure, password protected login rather than by specific console position.

1.4.6 Dispatcher Call Break-through/Interrupt Capability

The dispatcher shall have the ability to interrupt a call-in-progress with their "breakthrough" transmission at any time within a trunked talk group, or within a conventional call. During a call break-through transmission, monitoring members shall only hear dispatcher audio/transmissions. The radio user still transmitting at the time of the break-through will hear dispatcher audio upon de-keying their transmission.

1.4.7 Emergency Call Management

When a radio subscriber unit depresses a dedicated emergency button in a standard talk group/channel, the dispatch console position shall, upon receiving the call, alert the operator with both an audible and visual alarm. The emergency calling unit ID shall also be passed via CAD interface to the CAD system for display. The operator shall be required to manually acknowledge the alarm to clear the audible alert and visual indication. The dispatch console should allow options for defining the alarm acknowledgement response sequence to clear a received emergency alarm. The call history shall display the push-to-talk (PTT) ID and alias of the unit declaring the emergency, along with date and time of the emergency call.

It is recognized that the capability for emergency calling is a radio unit function. Since the current radios are independently purchased the capability may not be available to many users. The proposer must address this issue in its proposal and recommend solutions to Cowlitz 911

1.4.8 Patches

The console shall support patches, which involves temporarily combining two or more talk groups (or channels in a conventional environment) *to a single, RF resource per site*. A patch merges the entities into a common group, such that each member hears every other member. Each console shall be able to support up to five patches (talk groups and/or conventional channels) each. All entities patched together shall be able to communicate with one another. The console shall support pre- configured patches or tactical, on-the-fly patch setups. Proposers shall note any limitation on the number of talk groups or conventional channels that may be merged into a single patched resource.

1.4.9 Simultaneous Selection "Simul-select"

Consoles shall support simul-select, which involves temporarily summing two or more modules at the console, rather than at the system level. Simul-select merges the entities for the benefit of the dispatcher, but does not create a common group. Only the dispatcher can hear all simul-select members. Each console shall be able to support up to three simul-selects. The dispatcher shall be able to communicate with all entities contained in a single Simul-select. The console shall support pre-configured simul-

selects. Proposers shall note any limitation on the number of talk groups or conventional channels that may be merged into a single simul-select resource, and the number of simul-selects available per console in their proposed system.

1.4.10 Call History Log
Received calls shall be recorded with a date and timestamp for immediate or later review via a user-accessible and re-sizable window. The talk group and individual identification of received calls shall be displayed with the alphanumeric alias for ease of identification.

1.4.11 SMS or Text Message History Log
While SMS messaging has not been implemented for Cowlitz there may be a future requirement for received or transmitted short data (text) messages that should be recorded with a date and timestamp for immediate or later review via a user-accessible and re-sizable window. The identification of a received message shall be displayed with the alphanumeric alias presentation for ease of identification.

1.4.12 Central Console System Management
The radio system dispatch equipment and database shall be capable of being configured and managed from anywhere within the system management network. Console resource management should be integrated with the overall system network management approach.

1.4.13 Partitioning of Access to Console Configuration Parameters
The radio system dispatch architecture should be capable of supporting agency and dispatch center partitioning of features and functionality to ensure that the level of customization and modification to any dispatch console programmable configurations can only be accomplished by a user with a corresponding level of access.

This shall be implemented by various levels of logon access, whereby users are assigned priorities. Levels of dispatch operating position configuration and editing are based upon assigned user priority validated during the logon process. Partitioned access shall extend to both console configurations and to audio resource management, as well as provisioning and configuration by technical support staff.

1.4.14 Link Failure
The console shall visually notify the dispatcher of any IP link failure between the console position and the system central control equipment.

1.4.15 Conventional Operation
The console shall be able to control conventional control stations and repeaters and provide the following functions:
- Control base station transmit/receive operation, even with loss of trunked system connectivity
- Select a desired talk group or channel

- Enable duplex base stations and voting comparators to repeat radio-originated audio
- Enable toggling between main base stations and standby base stations

Proposers shall state how many simultaneous talk paths and receive audio sources the proposed consoles and supporting electronics allow.

1.4.16 Operator Position Workstation Display Consolidation

Opportunities to reduce information overload, eliminate clutter, and improve the visual representation of primary PSAP information to the dispatcher leads to increased operator efficiency and reduced fatigue. One opportunity for video screen reduction recognized by PSAP personnel is the consolidation of radio and 911 telephony/call-taking into a single screen.

The Proposer shall study the current dispatch console operator position visual presentation environment during the required site visit, and shall outline any capabilities of their proposed dispatch console solution to consolidate radio and 911 telephony call-taking functionality. The Proposer is invited to propose any other potential workspace reduction and consolidation benefits beyond radio and telephony afforded by their proposed solution. **Proposers should address the issue of single or multiple monitors along with a recommendation for single or multiple monitors.**

1.4.17 Console Position Audio Management and Jack Box Requirements

Dispatchers wear headsets with a two-prong amplifier and interface to the phone and radio at each console through dual jack boxes that allow a second operator or supervisor to monitor or assist with calls (as well as for training purposes).

The Proposer's proposed console audio interface solution shall incorporate two (2) dual plug-receptacles installed with one (1) at the left, and a one (1) at the right of each operator position. This shall allow the local dispatch operator as well as a second user (e.g. supervisor, trainee, etc.) to plug in and permit both users to access radio and telephone circuit receive audio, and PTT capability. In addition, a special PTT switch is required for ADA accommodation.

1.4.18 TIA-102A Conventional Digital Fixed Station Interface (DFSI) Support

Cowlitz 911 desires maximum dispatch capabilities for applications that may implement direct or wire-line connections to a conventional analog or digital base station for non-trunked applications. The features and capabilities offered in dispatch consoles supporting IP interfacing to conventional base stations is highly desirable, especially passing and processing of call information (such as PTT ID) to the console.

Proposers are requested to disclose in detail their proposed dispatch product's current compliance and supported functionality of conventional fixed station Interface in digital and analog operation.

1.4.19 Master Time Synchronization

Proposer-proposed core equipment (ex. IP packet core, alarms, dispatch console equipment, network controllers, etc.) that will be housed at PSAP must be tied into the Netclock GPS Modular Time and frequency synchronization system. Proposer shall include a backup Master Clock at a recommended alternate site location as part of their network proposal.

1.5 Backup Radio Control Stations

1.5.1 Loss of Connectivity

Cowlitz 911 requires dispatch operations to continue should loss of connectivity (digital or directly wired) occur between the dispatch console and the trunking system infrastructure, switch, or console gateway interface. A description of possible mobile radio control station remote control and dispatching schemes is outlined in Section 9.1.2.

1.5.2 Future Backup Control Station Capability

Back-up dispatching method is a desired core capability and responses shall include a back-up control station system design, providing equivalent or better capability to that presently implemented at Cowlitz 911 facilities. Cowlitz 911 has not yet defined the specifications or technology for its radio system upgrade or replacement. It is, however, aware that current digital mobile radio subscriber units implement advanced remote control schemes made possible by serial data control and specialized software command sets, advanced capabilities such as emulation of all radio front panel controls, talk group and PTT ID display, as well as emergency call management is also possible. Cowlitz 911 also understands that multiple console Proposers in the industry have software license agreements with radio Proposers to support this mode of control station dispatching.

Cowlitz 911 is considering a full back-up dispatch capability using trunked mobile control stations installed at other locations. Control stations and the proposed desktop remote configuration should, at a minimum, allow:
- PTT via headset, desk microphone, foot switch, or ADA PTT switch.
- Selection of multiple predefined Zones and Channels, where *channels* can be either trunked talk groups or conventional channels.
- LCD display of the selected Zone and Talk Group

Highly desirable additional features include:
- Decoding and display and TG ID and PTT ID
- 4-wire analog or full IP circuit connectivity options for linking
- Use of headset (preferred), handset and desk microphone.

Based upon the information above, the Proposer shall recommend a design and costs to implement a back-up radio control station dispatch system. Proposer shall describe the mobile radio interface methods; capabilities afforded by each interface, as well as

suitability for use with the proposed primary dispatch console, or recommended replacement desktop telephone-style handsets.

1.5.3 Control Station Replacement Considerations

As outlined previously, Cowlitz 911 makes use of control station dispatching as needed and depending upon service. Replacement mobile radios for control stations shall support both 700/800 MHz operation, or if another frequency band is proposed, the appropriate model.

Cowlitz 911 desires to not only retain this dispatching capability, but to enhance it through implementation of current technology, IP-based, remote management (IP-connected interface endpoints) of mobile control stations.

The successful Proposer shall evaluate the existing control station system and provide a one-for-one functionally-equivalent replacement or better. Specific items for consideration of this replacement include, but are not limited to:

1. Replacement of existing mobile transceivers with digital equivalent units
2. Substitution of 4-Wire and tone remote (EIA function tone) control with preferred distributed IP control technology.
3. Remote control and management of IP-connected radios with either desktop headset and/or PC laptop or workstation with most front panel functionality emulated via hardware or software control (i.e. "virtual" front panel).
4. Replacement roof-mounted control station antennas
5. Replacement of existing transmission line runs with of 1/2" diameter (or greater) semi-rigid, 100% shield cable
6. Replacement of 12 VDC power supply with appropriate current capacity for proposed replacement control stations, if not supplied as an integrated unit.

1.6 Desktop Remote Control Station Operation

The ability of Cowlitz 911 staff to use desktop remote control units for office and monitoring applications offers additional convenience of communications. Cowlitz 911 understands that both radio manufacturers and third party manufacturers offer such product solutions in the market.

The Proposer shall provide, as a cost option, the make, and models of OEM or third party desktop remotes that support their proposed mobile radios. Cowlitz 911 desires desktop remote unit models offering the equivalent of Mid-Tier radio functionality via radio remote access using Ethernet in an enterprise LAN environment. This shall include digital display and programmable channel access so that the remote unit emulates most of the functionality of the front panel of the connected radio.

The Proposer shall specify the remote-control technique options and capabilities provided with each. The minimum required functionality for a desktop-style remote controller is as follows:

- Control over copper circuits such as 4-wire, twisted pair cable
- Replicates the functionality of the connected radio, including front panel functionality

- Allows for interface of a variety of audio accessories (desk microphone, PTT footswitch, external speaker, wired or wireless headsets)
- LCD indication of selected talk group or channel of operation, preferably replication of connected/attached transceiver's display
- Display of received PTT ID while in an active call
- Capability of parallel operation of multiple desktop units via single adapter
- Front panel selection and calling of pre-defined groups or users
- Audio mute button
- Wall or desktop mounting

The ability of the desktop remote to select and operate multiple control stations from a single unit is desirable.

1.7 Portable Backup Consoles (OPTION)
IP based console systems are virtually 100 percent software based. Several manufacturers are licensing their software to provide end users the opportunity to install these "consoles in lap top and desktop computers to be used as training stations and portable emergency consoles. If there is a network connection to the console system then these units can be located anywhere that the network can be accessed. Proposers are to describe their product's capabilities for this use and to provide pricing for such units.

APPENDIX A

MOTOROLA GOLD ELITE FEATURES

TERM	DEFINITION
ADM	Alias Database Manager - A CENTRACOM Gold Series application program that configures aliases for subscriber radio units, status and message numbers, and phone numbers.
Aliasing	The console feature that allows the user to assign names to trunking talk groups, unit IDs, or conventional channels. For more information, refer to the Alias Database Manager User's Manual (68P81096E50).
All Mute	A feature which mutes all unselected audio, allowing the operator to hear the select audio more clearly.
Assignability	The console feature that allows CCMs to be dynamically assigned to specific channels.
Assignable Speakers	A feature which permits the assignment of specific channel audio to auxiliary speakers.
Audible Alarm	A loud tone generated by the console to indicate that an event has occurred which requires the operator's immediate attention. Sometimes referred to as Sonalert.
Base Stations	The repeater which is the source of audio received by the console, and the destination of audio transmitted from the console.
Busy Override	A trunking feature that allows one operator to take control of a resource from another operator.
Busy/ Callback	In trunking and iDEN systems, if all repeaters are busy, and an operator attempts to make a call, the console provides a busy indication and alerts the operator when a channel becomes available.
CAD	Computer Aided Dispatch - Console feature that allows dynamic reconfiguration of the system via a computer.
Call Alert	A signaling feature which permits the operator to send an alert tone to a radio, alerting its user to call in to the operator.
Channel Disable	A supervisory feature which permits the supervisor console to disable specific channels at another console.
Channel Marker (Priority)	The feature that causes a half second tone burst to be transmitted on a selected channel every 10 seconds to identify that channel as a priority channel.
Clock Display	For Buttons and LEDs, the central display on the master control panel. The time is set by the supervisor and the clocks at all other operator positions are then synchronized. The clock display is also used for task-specific displays.
Console	A console is made up of one or more operator positions and a CEB.
Conventional Channel	A non-trunked channel - A channel that always transmits at the same frequency.

Conventional Systems	A basic radio system, without signaling or trunking capability. Conventional systems can transmit voice but no data.
Data Logger	A data logger records console data. It can be used with signaling systems only.
De-Assign	The ability to unassign a channel.
De-key	Stop transmitting.
Deselect	A selected resource (highlighted on the screen) can be deselected by clicking the resource tile or another resource.
Download	Transfer data to the personal computer's disk through the local area network.
DPI	Direct Phone Interface - A BIM which interfaces to a phone line. Allows the operator to answer or initiate a call on a telephone line. Classic only.
DPL	Digital Private Line - This is a squelch type that can be used by incoming subscribers or base stations.
DTMF	Dual Tone Multi-Frequency is a type of signaling.
Duplex	Simultaneous two-way audio.
Duplex Patch	A patch wherein communication can occur in both directions at the same time.
DVP	Digital Voice Privacy encryption - Base station feature which encrypts audio for privacy.
Emergency Alarm	Enables a radio user to alert the console position of an emergency situation. In general, a radio user alerts a console position of an emergency situation by first issuing an emergency alarm. Putting a radio into emergency mode is one way to generate an emergency alarm from the radio.
Emergency Call	Highest priority call type available. Allows the console position to respond to emergency calls. Emergency calls may be initiated from either a console position or a radio.
Emergency Reset	After an inbound emergency call is received, the operator must reset the emergency indicator on the DCCM.
Enter ID	Permits the operator to enter the ID of a single radio and transmit a signal to only that radio. Enter ID is used with Classic signaling systems only.
Failsoft Mode	Operation of the trunking system when the trunking central controller is not operational. One repeater is designated for each talk group to use during failsoft mode.
Fallback Mode	The mode entered when the link to the CAD host fails.
Fallback Status	Status for each assignable channel which denotes one of three possible courses of action during fallback mode: keep the current assignment, revert to the fallback CCM, or de-assign the current assignment.
Footswitch	A pedal-operated switch located on the floor beneath most consoles. Pressing the right pedal is equivalent to pressing the Transmit bar on the console. Pressing the left pedal is equivalent to pressing the Monitor switch.

Group/ Regrouping	In trunking systems, radios are assigned to talkgroups, and the trunking central controller assigns channels to the talkgroups as required. Group Regrouping is a feature that permits several talkgroups to be combined into a multigroup using the MSEL or Patch feature.
Inbound Emergency	A feature that allows a radio to transmit an emergency signal to the console in signaling and trunking systems.
Individual ID	ID of a radio or console in a talkgroup.
Instant Transmit	A feature that allows the operator to transmit to an unselected resource. Each channel has its own Instant Transmit switch.
Intercom	A feature which permits voice communication between consoles.
Keying	Turning on a repeater.
Main/ Standby	A feature which allows the operator to choose the standby base station that the console will switch to if it cannot use the main base station.
Mic	Microphone.
Monitor (feature)	This feature temporarily suppresses the squelch on a muted channel, so the operator can monitor the channel for call activity before transmitting on it, thus preventing the operator from interrupting a call in progress.
MSEL	Multiselect.
Multigroup	Two or more talkgroups can be combined into a multigroup in trunking systems.
Multigroup Channel	A channel that transmits to all groups in a multigroup.
Multikey	Using Multiple decryption keys on a secure channel.
Multi-select	A method of combining several radios into a group so that all can be called at once.
Mute Second Receiver	This is a function that mutes the second receiver on multireceiver base stations.
Operator Disable	A supervisory feature which permits the supervisor console position to disable another console position.
Operator Position	The interface to the operator.
Page Safety Switch	Prevents accidental pages from the console. The safety switch must be pressed before sending a page.
Paging	The ability to send paging tones over the air
Paging Disable	A supervisory feature which permits the supervisor console to disable paging capability at another console.
Patch	A console feature that permits resources of different types to communicate directly.
Patch Idle Delay	The amount of time when there is no activity on a patch before the patch ACTIVE/IDLE LED flashes. The default is 30 seconds. It can be changed to any value from 1 to 255 seconds.
Patch Setup	The process by which the operator places resources into a patch.

Patch Transmit	The act of transmitting to all patch members from the console.
Primary Supervisor	The console position with the highest transmitting priority, and the ability to use supervisory features.
Private Call	A type of trunking channel used to talk to one individual radio.
PTT ID	A signaling feature that causes the ID of a radio to be displayed on the channel when the radio keys up.
Public Address	The ability to address an overhead paging system.
Radio Check	A signaling feature that allows the operator to check on whether an individual radio is operating.
Radio Enable/ Disable	A signaling feature which allows the console operator to remotely turn on a radio and cause it to transmit audio. If the radio has been lost or stolen, the operator can use radio disable to prevent misuse of the radio by unauthorized persons.
Recall Recorder	A recorder hooked up to the console which records calls for an Op position.
Regroupable	A talkgroup is regroupable if it can be redefined with another talkgroup into a multigroup during a patch or multiselect operation, and using one repeater.
Remote Monitor	A signaling feature which allows the operator to remotely key a radio without alerting its user.
Scan Control	Capability available on Elite operator positions with conventional non-partitioned ASTRO 25 radio resources, which allows the OP to enable or disable scanning of receivers on multi-frequency base stations which are associated with the resource.
Secondary Supervisor	The console position with the second-highest transmitting priority.
Secure calls	Encrypted calls using ASTRO Secure or SecureNet.
Select	Choosing a resource by pressing its Select switch routing audio to the select speaker.
Select Speaker	The console speaker through which the audio of the selected resource(s) is heard.
Selective Call	A call which is directed to either a single radio or a group of radios. See call alert or voice alert.
Self-Repeat	Also referred to as Talk-Through - Allows the Repeat path to be enabled.
Sequential Paging	Sequentially sending out pages (Check List Paging).
Signaling	The ability to send data on a conventional channel to support signaling features such as PTT ID.
Simplex Muting	Muting Audio on a simplex channel.
Simplex Patch	A patch wherein communication can occur in one direction at a time.
Sitewide	A fall back mode in SmartZone radio systems.
Smplx	Simplex- Radio communication is transmitted and received on one frequency.
Sonalert	Sound Alert is an audible indication at the operator position, of a relay opening or closing.

Status Request	A signaling feature which requests the status of a subscriber unit.
Status/ Message	A signaling feature which sends a status or message to a dispatch position. Only available on Classic Buttons and LEDs and Elite GUI.
Supervisor Status	The supervisory level for each operator position. Primary, secondary, and non-supervisor are the different supervisory levels.
Supervisor Takeover	A switch on the operator position which controls an aux-io on a BIM which inhibits T1600 or Series 90 type controllers from using a base station.
Supervisory Capabilities	Capabilities that can be performed at the supervisory console only.
System ID	The trunking system ID as it is known to the trunking central controller.
System-wide Channel	A channel whose talk group is the whole trunking system.
Takeover	Takeover refers to a dispatcher taking over a subscriber's audio transmission.
Talkgroup	A sub-grouping of the radios in a trunking system.
Talk-Through	Also referred to as Self-Repeat, allows the audio to be repeated in a base station.
Transmit	To originate a call to selected resources, either from the console or from a radio.
Transmit Priority	The ability of a higher-priority operator or transmission to take over a channel from a lower-priority operator or transmission.
Trunking	A method of allotting a limited number of channels to many radios, based on the principle that not all radios are in use at the same time. In trunking systems, the trunking central controller assigns channels to calls as required.
Trunking Talkgroup	The system, group, and talkgroup that a trunking channel belongs to.
Unselect Speaker	The console speaker through which all but the selected audio is heard.
Voice Alert	A paging tone sent to a radio to alert the user that a voice call from the console is being sent. This is useful if the radio user is out of the vehicle and cannot hear a voice call.

APPENDIX B
COMPLIANCE TO REQUIREMENTS

	Proposal Section	Comply	Comply with Exception	Cannot Comply	Proposed Alternative
	Instructions To Bidders				
1.1	Introduction				
1.2	Response Instructions				
1.3	Contact with Cowlitz 911 Employees				
1.4	Assess RFP Documents				
1.5	Costs of RFP Preparation and Submission				
1.6	Performance Bond				
1.7	Proposal Review				
1.8	Proposal Submission				
1.9	Delivery of Proposals				
1.1	Site Inspections				
1.11	Questions				
1.12	Project Timeline				
1.13	Right of Refusal				
1.14	Evaluations				
	Vendor Requirements				
2.1	Bidder authorization				
2.2	Bidder financial Stability				
2.3	Proposal Response Format				
	Statement Of Work				
1.1	Existing Dispatch Consoles Overview				
1.2	New Console System Compatibility				
1.3	Dispatch Console Configurations				
1.3.1	Proposer Integration Requirement with Existing PSAP Technology				
1.3.2	Radio Based Fire Station Alerting (FSA)				
1.4	Dispatch Console Operational Capabilities				

	Proposal Section	Comply	Comply with Exception	Cannot Comply	Proposed Alternative
1.4.1	Console Priority				
1.4.2	Parallel Operation				
1.4.3	Radio Unit PTT ID				
1.4.4	Encryption (optional)				
1.4.5	Radio Disable				
1.4.6	Dispatcher Call Break-through/Interrupt Capability				
1.4.7	Emergency Call Management				
1.4.8	Patches				
1.4.9	Simultaneous Selection "Simul-select"				
1.4.10	Call History Log				
1.4.11	SMS or Text Message History Log				
1.4.12	Central Console System Management				
1.4.13	Partitioning of Access to Console Configuration Parameters				
1.4.14	Link Failure				
1.4.15	Conventional Operation				
1.4.16	Operator Position Workstation Display Consolidation				
1.4.17	Console Position Audio Management and Jack Box Requirements				
1.4.18	TIA-102A Conventional Digital Fixed Station Interface (DFSI) Support				
1.4.19	Master Time Synchronization				
	Backup Radio Control Stations				
1.5.1	Loss of Connectivity				
1.5.2	Future Backup Control Station Capability				
1.5.3	Control Station Replacement Considerations				
1.6	Desktop Remote Control Station Operation				
1.7	Portable Backup Consoles (OPTION)				

<u>Proposers must explain all Exceptions and Proposed Alternatives on pages following this table. List the Section Number and the explanation.</u>

APPENDIX C

PROPOSAL COST DETAIL

DISPATCH RELATED EQUIPMENT

Item	Quantity	Unit cost	Extended Cost
Dispatch Console			
Console Control System			
Power Systems (UPS, etc.)			
Professional Services (Engineering, configuration, etc.)			
Installation			
User Training			
Manager Training			
List below additional items if required in pricing			
Encryption **(OPTION)**			
	Total Dispatch related costs		$

PROPOSAL COST DETAIL - MAINTENANCE CONTRACT

Proposer may breakdown maintenance costs as appropriate. As a minimum, the following items should be defined.

Description	Years 2-5	Years 6-10
24/7 Maintenance		

BACKUP (PORTABLE) CONSOLE EQUIPMENT (OPTION)

Item	Quantity	Unit cost	Extended Cost
Console			
Installation			
Miscellaneous (add items as required for complete system)			
	Total Dispatch related costs		$

Any additional equipment or services not specifically included in this agreement that are required to provide a complete and acceptable system shall be provided by the contractor without claim for additional payment.