REGIONAL DISTRICT
of Fraser-Fort George

CS-20-02
REQUEST FOR PROPOSALS FOR SUPPLY OF RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM AND DATA AND MEDIA LOGGING SYSTEM

Regional District of Fraser-Fort George
155 George Street, Prince George BC V2L 1P8
Telephone 250-960-4400 / Toll Free 1-800-667-1959 / Fax 250-562-8676
http://www.rdffg.bc.ca

TABLE OF CONTENTS

1.0 INTRODUCTION 4
1.1 Definitions 5
1.2 RFP Schedule: 6
1.3 Proposal Submissions 6
1.4 Errors, Omissions, Clarifications 7
1.5 Regional District's Right to Reject Proposal 7
1.6 Waiver of Claims for Compensation 8
1.7 Ownership of Proposals and Freedom of Information 8
1.8 Sub-Contractors 8
2.0 PROPOSAL FORMAT 8
3.0 PROPOSAL EVALUATION AND SELECTION PROCESS 9
3.1 Proposal Evaluation 9
3.2 Initial Proponent Selection Process 10
3.3 Selected Proponent Negotiations 10
3.4 Termination of Negotiations and/or RFP Process 10
3.5 Non-Compliance with RFP Specifications 10
3.6 References and Experience 11
4.0 MANUFACTURER SELECTION 11
4.1 Selection Criteria 11
4.2 Evaluation Criteria: 11
5.0 CONTRACT 11
5.1 Award of Contract 11
5.2 Form of Contract 11
6.0 RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM, AND DATA AND MEDIA LOGGING SYSTEM FAMILIARIZATION 12
6.1 Training and Installation 12
6.2 Technical and Operations Manuals, and As-Built System Drawings 12
7.0 RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM, AND DATA AND MEDIA LOGGING SYSTEM SPECIFICATIONS 12
7.1 Minimum Specifications 12
7.2 Specifications Not Outlined 12
7.3 Compliance with Laws and Regulations 12
8.0 WARRANTY, INSURANCE AND INDEMNITY 12
8.1 Systems Equipment Warranties 12
8.2 Manufacturer's Insurance 13
8.3 Indemnity 13
9.0 SYSTEMS DELIVERY AND PAYMENT 13
9.1 Systems Delivery Timetable 13
9.2 Delivery Terms 13
9.3 Contract Price 13
9.4 Payment Schedule 13
9.5 Holdback on Delivery 13

9.6 Late Delivery 14
LIST OF SUB-CONTRACTORS 15
APPENDIX A CONFLICT OF INTEREST DISCLOSURE STATEMENT 16
APPENDIX B SAMPLE CONTRACT CS-20-02 17
APPENDIX C-1 MINIMUM SPECIFICATIONS FOR RADIO DISPATCH CONSOLE SYSTEM 20
APPENDIX C-2 MINIMUM SPECIFICATIONS FOR CALL HANDLING/PHONE SYSTEM 66
APPENDIX C-3 MINIMUM SPECIFICATIONS FOR DATA AND MEDIA LOGGING SYSTEM 80
APPENDIX D-1 OPTIONAL FEATURES AND EQUIPMENT FOR RADIO DISPATCH CONSOLE SYSTEM 89
APPENDIX D-2 OPTIONAL FEATURES AND EQUIPMENT FOR CALL HANDLING/PHONE SYSTEM 93
APPENDIX D-3 OPTIONAL FEATURES FOR DATA AND MEDIA LOGGING SYSTEM 95
APPENDIX E-1 SCHEDULE OF PRICES FOR APPENDIX C-1 96
APPENDIX E-2 SCHEDULE OF PRICES FOR APPENDIX C-2 97
APPENDIX E-3 SCHEDULE OF PRICES FOR APPENDIX C-3 98
APPENDIX F VALUE-ADDED SYSTEM BUNDLING CONSIDERATIONS 99
APPENDIX G PROPONENT QUALIFICATIONS AND CAPABILITIES 100
FIGURE #1: RDFFG FIRE DISPATCH SYSTEM TRANSITION LAYOUT 102
FIGURE #2: RDFFG FIRE DISPATCH SYSTEM NEW FOCC AND BACKUP SITE 103

1.0 INTRODUCTION

The Regional District of Fraser-Fort George (the "Regional District") invites proposals from qualified suppliers for the supply and installation of a new radio dispatch console system, call handling/phone system, and data and media logging system for the Regional District's new primary fire dispatch center and redundant backup fire dispatch center, both centers are located in Prince George BC. The proponent will be competent and capable of performing the work. The proponent may be required to provide evidence of previous experience and financial responsibility before a contract is awarded.

Proponents must supply products/systems that meet the applicable Canadian NG911 NENA i3v2 and i3v3 standards for call handling and for data and media logging.

NENA i3 is an evolving standard and Proponents are expected to comply with the necessary upgrade paths and remain compliant with the Canadian requirements. The system shall be upgradable to accommodate future IP-based media including in-line text, video, and graphics as such media becomes accepted for use in public safety. This must be available with minimal costs and effort e.g. routine software upgrades at operator answering positions and/or the addition of small components to the system. Such upgrades shall not require complete replacement of major system components. Subsequent system upgrades will be backward compatible with the proposed solution. Detail how you will comply with this evolving standard in the future. See Appendix G.

Proponents, for all or any part, must base their proposal on furnishing everything including all labour, materials, tools, equipment and all necessary supplies and incidentals required to fulfill the requirements. The proponent in their proposal must state any deviation from these specifications.

The Regional District is in the process of moving to a new fire dispatch center and building a redundant backup fire dispatch center. As stated above, the RFP is for three (3) different fire dispatch functions:

- radio dispatch console system
- call handling/phone system, NG911 Canada version compliant
- data and media logging system, NG911 Canada version compliant

If one vendor can supply all three (3) systems, the vendor is to handle all integration issues between the systems as well as with the RDFFG's computer aided dispatch (CAD) system.

The three systems or combination of systems can also be bid on separately. In this case the radio dispatch console vendor would be responsible for audio integration with whichever call handling/phone system the RDFFG chooses, and the data and media logging vendor would be responsible for integration with the call handling/phone system and radio dispatch console systems, as well as with the RDFFG's CAD system. The call handling/phone system vendor would be responsible for integration with our CAD system for the CAD feed.

The RDFFG's design methodology is for each of the primary and backup fire dispatch centers to be fully operational independently of the other fire dispatch center, if the other center is not functional. The two fire dispatch centers will be connected with IP networks via fiber and microwave radio. The system(s) must have redundant core server systems. A vendor that can implement as many features with standard programming with the least modifications would be preferred.

RFP documents may be obtained on, or after, Wednesday February 12, 2020.

a) in public document format (PDF) from the Regional District's website www.rdffg.bc.ca; or

b) on the *BC Bid*® website www.bcbid.gov.bc.ca.

All subsequent information regarding this RFP, including amendments, addenda and answers to questions will also be available as above.

It is the sole responsibility of the proponent to ascertain that they have received a full set of the RFP documents, amendments and or addenda. Upon submission of their proposal, the proponent will be deemed conclusively to have been in possession of a full set of the RFP documents.
All questions relating to this project must be submitted by email to the Project Manager:

Melanie Perrin, Manager of Public Safety Operations
Regional District of Fraser-Fort George
155 George Street, Prince George BC V2L 1P8
Email: mperrin@rdffg.bc.ca

1.1 Definitions

Throughout this proposal, the following definitions apply:

"ACD" - Automatic Call Distribution

"ANI/ALI" - Automatic Number Identification and Automatic Location Information

"CAD" - refers to the RDFFG's Computer Aided Dispatch system

"COR" - Carrier Operated Relay

"CSI" - Connect Systems Incorporated

"DTMF" - Dual Tone Multi Frequency

"EVS" – Enhanced Voice Service

"GUI" - Graphical User Interface

"i3" - Internet 3 (NENA Internet phase 3 solution)

"IP" - Internet Protocol

"LAN" - Local-Area Network

"Must", "Must" or "Mandatory" means requirement that must be met for the proposal to receive consideration.

"NENA" - National Emergency Number Association

"NG911" - Next Generation 9-1-1

"NIC" - Network Interface Card

"NTP" - Network Time Protocol

"PTT" - Push to Talk

"POTS" – Plain old telephone service

"QA/QI" refers to the Quality Assurance/Quality improvement

"RDFFG" refers to the Regional District of Fraser For George

"RFP" means this request for proposal.

"ROIP" - Radio Over Internet Protocol

"RTT" - Real Time Text

"SIP" - Session Initiation Protocol

"SNMP" - Simple Network Management Protocol

"Systems" – means the plural reference to all three (3) systems

"TELCO" – telephone company

"VOIP" - Voice Over Internet Protocol

"VPN" - Virtual Private Network

"V3"- Version 3 (ex: NENA i3 V3)

1.2 RFP Schedule:

- Release Date: Wednesday, February 12, 2020
- Deadline for Inquiries: 4:00pm PST: Monday, March 9, 2020
- **RFP Closing: 2:00pm PST: Wednesday, March 18, 2020**
- Proposal Evaluations: March 19 to May 8, 2020
- Proposal Demonstrations: March 19 to May 8, 2020 (if required)

1.3 Proposal Submissions

Sealed proposals will be received by the General Manager of Financial Services, at the Regional District of Fraser-Fort George, up to **2:00 p.m. local time on Wednesday, March 18, 2020.** Proposals submitted by fax, electronically, or not in the original Regional District format will NOT be accepted. Any proposal received after the closing date and time on **Wednesday, March 18, 2020 @ 2:00 p.m.** will be considered disqualified and will be returned unopened to the proponent.

Proponents will complete and submit three (3) copies of their proposal, formatted as described in Section 2.0 PROPOSAL FORMAT, in a sealed envelope. Each copy must be complete and unabridged and must not refer to any other copy for additional information, clarification, or details.

One of the three (3) copies, the original (containing original signatures), is to be clearly identified as the original proposal. In the event of discrepancy between the original submission and the remaining two (2) paper copies, the original document must prevail. Should it be in question which submitted version is to be taken as the original, the Regional District's determination must be final and binding on all parties.

The following information **must be written on the outside of the sealed envelope containing the proposal submission, as well as on the outside of the courier envelope (if sending by courier):**

1. Attention: General Manager of Financial Services
   Regional District of Fraser-Fort George
   3rd Floor, 155 George Street
   Prince George BC V2L 1P8

2. Request for Proposal CS-20-02
   Supply and Installation of Radio Dispatch Console System,
   Call Handling/Phone System, and Data and Media Logging System

3. Responding proponent's name and address.

To be considered, the proposal (including Appendix E-1 – Schedule of Prices for Radio Dispatch Console System, and/or Appendix E-2 – Schedule of Prices for Call Handling/Phone System, and/or Appendix E-3 – Schedule of Prices for Data and Media Logging System) must contain the original signature of an authorized signatory of the proponent. By signing the proposal, the proponent is bound to statements made in response to this Request for Proposals ("RFP"). Any proposal received by the Regional District that is unsigned will be rejected.

Proposals not submitted in strict accordance with these instructions or not complying with the requirements in this RFP may be rejected.

1.4 Errors, Omissions, Clarifications

Proponents finding discrepancies, errors, or omissions in this RFP, or requiring clarification on the meaning or intent of any part therein, should immediately request in written form **by email**, clarification from the Project Manager, Melanie Perrin, mperrin@rdffg.bc.ca. The Regional District will not accept responsibility for any damages, costs or expenses incurred by a proponent in reliance on oral instructions. Any work done in preparation of a proposal after discovery of discrepancies, errors, or omissions in the RFP will be done at the proponent's risk unless the discrepancy, error, or omission is reported to Ms. Perrin in accordance with this provision.

Any requests for explanations, interpretations, or clarifications made by proponents must be submitted in writing by email to the Project Manager **no later than 4:00 p.m. on Monday, March 9th, 2020** in order that addenda or amendments, if necessary, are available to all proponents in time to be considered for the preparation of their submission.
If the Regional District, in the Regional District's sole discretion, determines that a clarification, addition, deletion, or revision of the RFP is required then the Regional District will issue an addendum and the addendum will be posted on the Regional District website and BC Bid (see S. 1.0). **It is the sole responsibility of the proponent to check for addendums.**

All amendments and addenda, if any, issued for this RFP must be signed by the proponent and included with the proposal submission and will form part of the Contract documents.

1.5 Regional District's Right to Reject Proposal

The Regional District reserves the right, in its sole discretion, to waive informalities in proposals, reject any and all proposals, or accept the proposal deemed most favorable in the interests of the Regional District. The lowest, or any proposal, will not necessarily be awarded.

Proposals which contain qualifying conditions or otherwise fail to conform to the instructions contained in this RFP may be disqualified or rejected. The Regional District may, however, in its sole discretion, reject or retain for its consideration proposals which are non-conforming because they do not contain the content or form required by the RFP, or for failure to comply with the process for submission set out in this RFP, whether or not such non-compliance is material.

The Regional District reserves the right to reject a proposal based on potential or perceived conflict of interest on the part of a proponent. Without limitation, the Regional District reserves the discretion to reject any proposal where:

a) one or more of the directors, officers, principals, partners, senior management employees, shareholders or owners of the proponent, is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District; or

b) in the case of a proposal submitted by a proponent who is an individual person, where that individual is an officer, employee or director of the Regional District, or is a member of the immediate family of an officer, employee or director of the Regional District.

When submitting a proposal, the proponent is required to complete, sign, and include with their proposal a Conflict of Interest Disclosure Statement (Appendix A).

The Regional District reserves the right to reject any proposal submitted by a proponent who is, or whose principals are, at the time of proposal, engaged in a lawsuit against the Regional District in relation to work similar to that being proposed.

1.6 Waiver of Claims for Compensation

Except for a claim for the reasonable cost of preparation of its proposal, by submitting a proposal, each proponent irrevocably waives any claim, action, or proceeding against the Regional District including, without limitation, any judicial review or injunction application, and any claim against the Regional District and its elected officials, officers and employees for damages, expenses or costs, loss of profits, loss of opportunity or any consequential loss for any reason, including any such claim, action or proceeding arising from:

1) any actual or alleged unfairness on the part of the Regional District at any stage of the proposal process, including without limitation, any alleged unfairness in the evaluation of a proposal or award of a contract;

2) a decision by the Regional District not to award a contract to that proponent; or

3) the Regional District's award of a contract to a proponent whose proposal does not conform to the requirements of this RFP.

1.7 Ownership of Proposals and Freedom of Information

Proposals will be received and held in confidence by the Regional District, subject to the provisions of the *Freedom of Information and Protection of Privacy Act* and this RFP. Each proposal should clearly identify any information that is considered to be confidential or propriety information. Proponents are responsible to review the *Freedom of Information and Protection of Privacy Act* for further information.

All documents, including proposals, submitted to the Regional District become the property of the Regional District. The Regional District will provide a debriefing for proponents, upon request by a proponent, subject to the *Freedom of Information and Protection of Privacy Act*.

1.8 Sub-Contractors

The List of Sub-Contractors is to be completed by the Proponent and will form part of the contract documents. The sub-contractors named in the List of Sub-Contractors will not be changed nor will additional sub-contractors be employed except with the written approval of the Regional District.

2.0 PROPOSAL FORMAT

Proponents are to respond in a similar manner. Appendices A, C1-3, D1-3, E1-3, F and G must be submitted on the same forms included in this RFP, no exceptions. The following format and sequence should be followed in order to provide consistency in responses and to ensure each proposal receives full and complete consideration. All pages should be consecutively numbered, and each section should be divided by tabs.

a) title page including RFP title and number, proponent's name and address, telephone number, email address, and contact representative.
b) one-page Letter of Introduction **SIGNED** by the authorized signatory of the proponent which will bind the proposed statement(s) made in the proposal.
c) Proponent's Profile, including a brief overview of their organization.
d) **table of contents including page numbers and sections divided by tabs.**
e) an Executive Summary of the key features of the proposal.
f) completed List of Sub-Contractors form
g) completed and signed Appendix A – Conflict of Interest Disclosure Statement.
h) completed Appendix C-1 – Supply and Installation of Radio Dispatch Console System. (if proponent elects to submit)
i) completed Appendix C-2 – Supply and Installation of Call Handling/Phone System. (if proponent elects to submit)
j) completed Appendix C-3 – Supply and Installation of Data and Media Logging System. (if proponent elects to submit)
k) completed Appendix D-1 – Optional Features and Equipment for Radio Dispatch Console System. (if proponent elects to submit)
l) completed Appendix D-2 – Optional Features for Call Handling/Phone System. (if proponent elects to submit)
m) completed Appendix D-3 – Optional Features for Data and Media Logging System. (if proponent elects to submit
n) completed Appendix E-1 – Schedule of Prices for Radio Dispatch Console System. (if proponent elects to submit)
o) completed Appendix E-2 – Schedule of Prices for Call Handling/Phone System. (if proponent elects to submit)
p) completed Appendix E-3 – Schedule of Prices for Data and Media Logging System. (if proponent elects to submit)
q) completed Appendix F – Value Added System Bundling Considerations
r) completed Appendix G – Proponent Qualifications and Capabilities
s) complete contact information for three (3) references for each of the three systems proponent is submitting a bid for; Radio Dispatch Console System, Call Handling/Phone System, and Data and Media Logging System (see 3.6).
t) amendments or addenda, if any, issued for this RFP. **Each amendment and addenda must be signed by the proponent and be included with their proposal submission and will form part of the Contract documents.**

3.0 PROPOSAL EVALUATION AND SELECTION PROCESS

3.1 Proposal Evaluation

All proposals will be initially evaluated by the Regional District to assess the qualifications and capabilities of proponents to meet the minimum standards specified in the RFP.

The proposal evaluation through to proponent selection will be based on the following process as deemed appropriate by the Regional District:

1. Initial proposal evaluation by the Regional District.
2. Follow up question(s) from the Regional District to proponent(s). (Optional at discretion of the Regional District.)

3. Further question(s) from the Regional District to proponent(s). (Optional at discretion of the Regional District.)
4. Interview(s) of selected proponent(s) by the Regional District. (Optional at discretion of the Regional District.)
5. Follow-up interview of selected finalist(s). (Optional at discretion of the Regional District.)
6. Site visits of select finalist(s) for product demonstrations, to be done between March 19th and May 8th, 2020. (Optional at discretion of the Regional District.)
7. Proposal scoring by the Regional District as per RFP criteria and Section 4.2 Evaluation Criteria.
8. Recommendations to Board.

3.2 Initial Proponent Selection Process

As a result of the initial written proposal evaluation, the Regional District may, at its sole discretion, request oral presentations and enter into detailed discussions with initially selected proponents prior to preparing a short-list of qualified proponents.

The Regional District may, at its sole discretion, prepare a "short-list" of proponents which initially appear to have the necessary qualifications, based solely on the information contained in the written proposals and/or additional information that may be obtained by the Regional District. The Regional District will be under no obligation to obtain additional clarification from any proponent(s) prior to preparing an initial "short-list" or before entering into detailed discussions, or negotiations, with any proponent.

3.3 Selected Proponent Negotiations

The Regional District, at its sole discretion, reserves the right to enter into contract negotiations with a selected proponent, or proponents, based only on the evaluation of the written proposal(s), and/or an evaluation of the combination of the written proposals, oral presentations, product demonstrations, and/or detailed discussions.

The Regional District reserves the right to enter into negotiations with any proponent without requiring any other proponents to make a presentation or to enter into detailed discussions with the Regional District.

3.4 Termination of Negotiations and/or RFP Process

The Regional District reserves the right to terminate contract negotiations with any proponent, and to enter into contract negotiations with any other proponent(s) if, in the opinion of the Regional District at any time, the contract negotiations with the initially selected proponent(s) will not be satisfactorily completed in the best interests of the Regional District.

The Regional District may, at its sole discretion, reject any or all proposals at any time throughout the proposal evaluation, proponent selection, or contract negotiation process.

3.5 Non-Compliance with RFP Specifications

Unless explicitly stated in a proposal, all proposals must be assumed by the Regional District to be in full compliance with the RFP specifications without exception.

All items in the proposal that are **not** in full compliance, or that vary from the specific RFP specifications, must be clearly identified in the proposal as non-compliant and/or variant, and must include specific reference to the relevant section in the RFP and the precise nature of the variance or non-compliance.

Non-compliance or variances with the specific RFP specifications will not necessarily result in rejection of a proposal.

The acceptance or rejection of all non-compliant items, and/or variances to the RFP specifications, must be at the sole discretion of the Regional District, without any obligation by the Regional District to either request clarifications, enter into detailed discussions, or negotiations with the proponent(s).
All bids must be submitted with completed Appendices A, C1-3, D1-3, E1-3, F and G (for the systems that the proponent elects to submit a proposal for) as contained within this RFP in order to be eligible for consideration.

3.6 References and Experience

Please include three (3) references for each of the Systems included in this RFP for which you are submitting a proposal for that may be contacted for purposes of confirming your company's experience in supplying and delivering this type(s) of system(s). For each reference please provide company name; contact name; phone number; email address, and type of system the reference is for.

4.0 MANUFACTURER SELECTION

4.1 Selection Criteria

The following are the criteria and the percentage of the total score for each criterion that will be used by the Regional District to select a proponent. The list of criteria is not in any particular order of priority. The Regional District, in its sole judgment, will base the selection of a successful proponent on a combination of the following criteria:

4.2 Evaluation Criteria:

Proponent's Qualifications, Experience and References	20%
Compliance with RFP Specifications	40%
Delivery Date	10%
Price	30%
Total	**100%**

5.0 CONTRACT

5.1 Award of Contract

The Regional District reserves the right to award this RFP, in part, or in whole. Selection and award of the three systems in part, or in whole, will be determined through the evaluation and scoring process.

The Award of Contract is expected to be made not later than **Thursday, May 21st, 2020.** All proponents will be advised in writing of the final results of the RFP evaluation process.

The Regional District, in its sole judgment, may delay the Award of Contract date as deemed appropriate by the Regional District.

5.2 Form of Contract

The Contract to supply and install, one or multiple systems in this RFP, will be in the form of:

- the complete CS-20-02 RFP document, including appendices, and any amendments or addenda;
- Contractor's proposal submission; and
- a Contract Agreement similar to the sample provided in Appendix B of this RFP.

6.0 RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM, AND DATA AND MEDIA LOGGING SYSTEM FAMILIARIZATION

6.1 Training and Installation

Training must be provided onsite concurrent with installation assistance by Proponent field engineering personnel. Training must cover theory of operation, troubleshooting techniques, system database entry, and emergency restoration procedures. Maintenance training must be conducted at a level of comprehension suitable for an electronic technician.

All proponents must indicate the degree to which in-service training is being provided on the systems. Details of training requirements are listed in Appendix C-1, C-2 and C-3.

6.2 Technical and Operations Manuals, and As-Built System Drawings

Provide technical manuals, including as-built drawings, and operation manuals for each system that the proponent is providing. Provide three (3) hard copies of each of the manuals, as well as one electronic copy of each manual. The proponent is to include any upgrade supplements to keep documentation current when changes are made to the system(s).

7.0 RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM, AND DATA AND MEDIA LOGGING SYSTEM SPECIFICATIONS

7.1 Minimum Specifications

The minimum specifications for the Supply and Installation of the Radio Dispatch Console System, Call Handling/Phone System, and Data and Media Logging System are as detailed in Appendix C-1, C-2, C-3 attached to and forming part of this RFP. Proponents may recommend changes or adjustments to the specifications outlined where the proponent believes that such changes or adjustments will result in a better-quality product in terms of efficiency, tractability, serviceability, or general operation. In all cases, the proponent should provide reasons for the recommended changes or adjustments to the RFP specifications in the initial proposal response documents. State the page number and reference section in the proposal where necessary.

7.2 Specifications Not Outlined

In terms of any of the systems specifications not detailed in this RFP, proponents are free to bid on the proposal as they choose, provided that the proponent's relevant specifications are detailed in the proposal response.

7.3 Compliance with Laws and Regulations

The successful proponent (the “Contractor”) will give all the notices and obtain all the licenses and permits required to perform the work. The successful proponent (the “Contractor”) will comply with all laws applicable to the work or performance of the contract.

Any Contract resulting from this RFP will be governed by and will be construed and interpreted in accordance with all laws in effect for the province of British Columbia.

8.0 WARRANTY, INSURANCE AND INDEMNITY

8.1 Systems Equipment Warranties

Proponents must list the standard warranties applicable to each of the system(s), which are included in the bid price(s), and document additional or extended warranties that are available together with any special provisions and applicable costs.

8.2 Manufacturer's Insurance

The successful proponent (the “Contractor”) will be expected to satisfy the Regional District that sufficient insurance is provided to protect the Regional District's direct investment in the event the system(s) is damaged or destroyed prior to delivery.

8.3 Indemnity

The successful proponent (the “Contractor”) must release, indemnify, defend and save harmless the Regional District, its officers, employees, servants, and agents of and from all claims, costs, losses, damages, actions, classes of action, expenses and costs arising out of or relating to the Contractor’s breach of this Contract or the negligent acts or omissions of the Contractor or its employees, consultants or agents.

9.0 SYSTEMS DELIVERY AND PAYMENT

9.1 Systems Delivery Timetable

Delivery of the systems are to occur in two phases. The first phase will be to install the systems at the primary fire dispatch center. The systems must have both redundant servers at this location. The delivery and install for the primary location is anticipated to occur in September 2020, therefore the proponent must be able to meet this requirement and bid price must include this.

The second phase will be to install the systems at the back up fire dispatch center location. This will require the system to be reconfigured so both centers have servers and the systems are using resources at both centers. The delivery and install for the backup location is anticipated to occur in spring of 2021, therefore the proponent must be able to meet this requirement and bid price must include this.

9.2 Delivery Terms

The successful proponent will be expected to deliver the systems based on FOB destination delivery terms, with the destination referred to as Prince George, British Columbia. Modification of delivery terms can only occur with pre-approval from the Regional District.

9.3 Contract Price

All prices for the systems must be stated in Canadian dollars. Any applicable Federal or Provincial taxes or levies must be included in the proposal response and are to be listed separately from the contract price. Appendix E-1, E-2 and E-3 – Schedule of Prices, must be completed and included in the proposal package for each system the proponent is submitting a bid for.

9.4 Payment Schedule

Proponents will outline the proposed payment schedule with sufficient detail so as to allow evaluation by the Regional District of when progress payments, if applicable, may become due.

9.5 Holdback on Delivery

In the event it is determined that the provided system(s) does not meet the specifications outlined in the Contract or that the provided system(s) is deficient in any way, the Regional District may, at the time of delivery and installation, hold back sufficient funds to ensure compliance. The amount of the holdback, if any, and the provisions for the release of funds must be subject to discussion between the Regional District and the Contractor. The remedy of any discrepancies and/or deficiencies by the Contractor must occur within a reasonable period of time, to the satisfaction of the Regional District.

9.6 Late Delivery

The Contractor will be required to notify the Regional District if there is any change in the delivery date provided in the Contract and the reason behind the change in delivery date.

LIST OF SUB-CONTRACTORS

The Proponent advises that they will be sub-contracting the following parts of the work to the sub-contractor(s) listed below. In the Proponent's opinion, the sub-contractor(s) named are reliable and competent to perform that part of the work for which each is listed. Please indicate not applicable on this page if sub-contractors are not required and include it with your proposal submission. The sub-contractors named in the List of Sub-Contractors will not be changed nor will additional sub-contractors be employed except with the written approval of the Regional District.

Sub-Contractor's Legal Name	Work to be Performed by Sub-Contractor

APPENDIX A CONFLICT OF INTEREST DISCLOSURE STATEMENT

RFP CS-20-02
Supply of Radio Dispatch Console System, Call Handling/Phone System and Data and Media Logging System

Proponent Name: _____

The Proponent, including its officers, employees, and any person or other entity working on behalf of, or in conjunction with, the Proponent on this procurement process:

☐ is free of any conflict of interest that could be perceived to improperly influence the outcome of this procurement process.

☐ has not, and will not, participate in any improper procurement practices that can provide the Proponent with an unfair competitive advantage including obtaining and using insider type information to prepare a solicitation offer or participating in bid rigging.

☐ has an actual, perceived or potential conflict of interest regarding this procurement process as a result of:

State reasons(s) for Conflict of Interest:

_____

_____

_____

_____

_____

By signing below, I certify that all statement made on this form are true and correct to the best of my knowledge.

_____ _____
Print Name of Person Signing Disclosure | Representing: Company Name

_____ _____
Signature of Person Making Disclosure | Date Signed

APPENDIX B SAMPLE CONTRACT CS-20-02
SUPPLY OF RADIO DISPATCH CONSOLE SYSTEM, CALL HANDLING/PHONE SYSTEM AND/OR DATA AND MEDIA LOGGING SYSTEM

BETWEEN:

REGIONAL DISTRICT OF FRASER-FORT GEORGE, a local government incorporated pursuant to the *Local Government Act* and having its business office located at:
155 George Street
Prince George BC V2L 1P8

(hereinafter called "the Regional District")

OF THE FIRST PART

AND:

CONTRACTOR
a company duly incorporated under the laws of British Columbia and having a place of business at:
address
address

(hereinafter called the "Contractor")

OF THE SECOND PART

WITNESSETH that the Contractor and the Regional District undertake and agree as follows:

1. The Contractor will:

   (a) Provide all necessary labour, equipment, transportation, materials, supervision, and services to perform all of the work, and fulfill everything as set forth in, and in strict accordance with, the contract documents for the supply of a new Radio Dispatch Console System, Call Handling/Phone System and Data and Media Logging System.

   (b) Commence to actively proceed with the build of the new systems upon execution of the Contract and complete the work on or before _____TBD_____.

2. The Regional District will pay to the Contractor, as full compensation for the performance and fulfillment of this Contract, $_____TBD_____ (plus applicable taxes) in Canadian funds. Payment will be made within 30 days of receipt by the Regional District of a proper invoice for the new systems in accordance with the Contract, unless other payment terms are specified in the Contractor's proposal and are acceptable to the Regional District. The Regional District may, in its sole discretion hold back payment(s) otherwise due to the Contractor, on account of deficient work. This holdback may be held, without interest, until such deficiency is remedied. The items of deficiency and the amounts of related holdback must be listed by the Regional District and notice given to the Contractor within seven (7) days of receipt of invoice.

3. The Request for Proposal, including Appendices A, B, C, D, E, F and G, amendments and addenda if any, Contractor's proposal submission, and any information that the Contractor provides are incorporated herein, to the intent and purpose as though recited in full herein, and the whole will form the Contract and will enure to the benefit of, and be binding upon, the parties hereto and their successors, executors, administrators, and assigns.

4. The Contractor, by signing this Contract and by completing Appendix A, Conflict of Interest Disclosure Statement, further affirms that no conflict of interest exists or prevents their entering into this Contract.

5. In the event of a dispute between the Regional District and the Contractor, this Contract will be governed by, and will be construed and interpreted in accordance with, all the laws of the Province of British Columbia.
6. The Contractor will adhere to the warranty conditions outlined in the Contractor's proposal submission and as outlined in section 7 below.

7. The warranty provisions are as follows:
   a. *to be completed based on the Contractor's proposal submission.*

8. No implied contract of any kind whatsoever, by or on behalf of the Regional District, will arise or be implied from anything contained in this Contract or from any position or situation of the parties at any time, it being understood and agreed that the express contracts, covenants and agreements made herein by the parties hereto are, and will be, the only contract, covenants and agreements on which any rights against the Regional District may be founded.

9. Subject to Section 8, this Contract will supersede all communications, negotiations, and agreements, either written or verbal, made between the parties hereto in respect of matters pertaining to this Contract prior to the execution and delivery thereof.

10. All communications in writing between the parties will be deemed to have been received by the addressee if delivered to the individual, or to a member of a firm, or to the Project Manager of the Regional District for whom they are intended, or if sent by hand delivery, mail or registered mail as follows:

    Contractor Name and Address

    Melanie Perrin, Manager of Public Safety Operations, Regional District of Fraser-Fort George at 155 George Street, Prince George BC V2L 1P8.

11. Where it is beyond control of the Contractor to meet the completion date as stipulated herein, the Contractor must immediately notify the Regional District in writing. It must be at the Regional District's sole discretion to extend the completion date or waive any part or clause of this Contract.

IN WITNESS WHEREOF the parties have duly executed this Contract.

SIGNED ON BEHALF OF THE
REGIONAL DISTRICT OF FRASER-FORT GEORGE

_____ _____
Chair Date

_____ _____
GM of Legislative and Corporate Services Date

SIGNED ON BEHALF OF
CONTRACTOR

DO NOT SIGN SAMPLE ONLY

_____ _____
Signature Date

_____
(Name and Title) (Please print)

DO NOT SIGN SAMPLE ONLY

_____ _____
Signature Date

_____
(Name and Title) (Please print)

APPENDIX C-1 MINIMUM SPECIFICATIONS FOR RADIO DISPATCH CONSOLE SYSTEM
PROPOSAL MINIMUM SPECIFICATIONS

Radio Console System overview: the following is a general description of the RDFFG's requirements see the specifications list for all details.

The RDFFG is looking for a robust and reliable radio dispatch console system that can support the RDFFG's current analog requirements, and future connections to digital systems. The radio dispatch console system must support the primary and backup regional fire dispatch centers. The radio dispatch console must have flexible architecture, with the ability for our technical staff to do GUI layout, design and function changes, as well as the ability to configure all elements that are connected by network from a central administration software. The console must have redundant servers, a minimum of one at each dispatch center connected to the console and interface units by IP network. The two separate dispatch centers must function with the ability to use resources at each center. If one center is not functional the other center must be capable of operating independently. The radio channels connections will be duplicated at each dispatch center, and the console telephone trunks will be split between the two dispatch centers. See details below and Figure 1 and Figure 2.

RDFFG radio system interfaces: the analog VHF systems will have separate connections to the console system at both dispatch centers. We require 56 radio channel interfaces, 28 radio channel interfaces at each center with the ability to add more in the future.

Connection to Telephone Interconnects: the console system needs to interface to our current analog radio system and via telephone lines to agency telephone interconnects (Zetron 45B and CSI Connect System Inc models) The interconnects are used for back up connection for the radio primary agencies and for primary and backup connection for all other agencies. The new console system must support future connections to the various digital radio standards, radio over internet protocol (ROIP), and the future public safety broadband network wireless system.

Telephone trunks for connection to telephone interconnects: our current system has 16 analog loop start telephone trunks at the primary dispatch center. These are used for connecting the console system to the agencies telephone interconnect units, as well as for incoming connect request from agency telephone interconnect systems. For the new system, we will have 10 analog loop start telephone trunks at each location from Telus. In addition, 4 additional telephone interface units to be used for satellite or cellular POTS units at each location. The system must be able to use the telephone trunk interface units at either center.

Intown paging system: an automated system to send specific agencies' page tones and recorded page message on a separate paging channel that covers the City of Prince George. If an agency is specified as an in town page agency, when a group or officer page is initiated on the radio primary system or telephone back up, after the page is sent out to the agency the system will record the next audio transmitted from the console on that agency. When the console PTT is released after the operator finishes the page message, the tone channel frequency for the specific agency is sent on the intown page channel, the agency's two-tone page tones, followed by the recorded audio. The system must queue intown pages when the intown page system is busy.

Status Screen: a requirement for a screen showing all the agency names in a fixed layout, grouped by area and function. The screen must indicate if the agency is connected on primary or backup, and which consoles have the agency GUI open, and which are selected.

If the specification is non-compliant on any of these specifications as outlined in Appendix C-1 this must be indicated by checking the "non-compliant" column, and then the third column on this form MUST be completed detailing what the variation being supplied is and the reason for the variation.

Where there is insufficient space in the columns provided to provide details, state section and page reference number where details can be found in the proposal.

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
1.0	**MAIN SYSTEM CONFIGURATION**				
1.1	Supply a VOIP dispatch console system interconnected with industry-standard ethernet-based IP infrastructure.				
1.2	Supply redundant servers, minimum one at primary site and one at the backup site.				
1.3	The servers must be based on non-proprietary PC hardware.				
1.4	Specify the operating system the servers are using.				
1.5	The servers must employ a modular software-based architecture to support new types of communication protocols and resources without requiring proprietary hardware. All servers' features must be software based. The servers must contain all the software necessary to interface the external endpoint devices directly through the enterprise network.				
1.6	The server administration must be protected by user authentication. All elements must be configurable by administrator via administration software. All updates and modifications must take effect immediately after editing. Specify if any of the devices need rebooting after configuring changes.				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
1.7	The servers must have manual and automatic fail over to ensure continuous uptime.				
1.8	The **fail over process** must keep all active connections up.				
1.9	If the network connection between the two dispatch centers is totally down the dispatch system servers must be able to run independently allowing the two centers to function as stand-alone dispatch centers, using the radio and telephone resources at each site.				
1.10	Specify if the system allows the backup center to be operated independently to allow testing of system changes not in the production system.				
1.11	Specify LAN requirements (ie speed, delay, jitter etc) for the connection between the servers at each of the two dispatch centers.				
1.12	Specify what network quality of service the console system supports.				
1.13	Must support time synchronization: the system must synchronize its internal time of day clock with an external time source(s) using the NTP servers.				
1.14	Supply ten (10) console positions total, six (6) at primary site four (4) at backup site				
1.15	Supply two (2) laptops configured as portable consoles, to allow connection to the console system from the internal network as well as the public internet.				
1.16	Supply fifty-six (56) analog radio interfaces total, twenty-eight (28) at the primary and twenty-eight (28) at the backup site.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
1.17	Supply twenty-eight (28) analog telephone trunk interfaces total, fourteen (14) at primary and fourteen (14) at the backup site.				
1.18	The system must support SIP phone trunks.				
1.19	The system must support various digital radio standards. See section 8.0.				
1.20	The system must meet all Electrical Standards. The system must utilize 120-volt AC/60 Hz. RDFFG will supply power from the RDFFG UPS system. Specify the power load at each dispatch center in watts.				
1.21	**System Capacity:** must support minimum of 200 agencies.				
1.22	Specify the number of agencies the system supports, including details.				
1.23	Specify the number of concurrent connections the system supports.				
1.24	Specify the number of consoles positions the system supports.				
1.25	The vendor must provide a detailed overview of the proposed solution's architecture. Including LAN requirements between the two servers and to the operator positions devices and the radio and telephone line equipment.				
2.0	**RADIO CONSOLE EQUIPMENT**				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
2.1	Supply ten (10) complete operator console systems with desktop computer, display screens, audio interface, unit speakers, and a PTT footswitch. More details are below. Six (6) are for the primary dispatch center and four (4) are for the backup center.				
2.2	Specify console PC operating system.				
2.3	The console computer must have dual network cards with teaming for supporting redundant LAN.				
2.4	**The computer display** screens must be touch enabled.				
2.5	The computer video card connections must be DVI, or other digital standard that allows the connection to be securely fastened with screw fasteners.				
2.6	**The console audio interface unit** must be IP connected.				
2.7	Does the console audio interface unit support redundant IP ports with teaming?				
2.8	The console audio interface unit must support one (1) select and minimum two (2) unselect speakers. Specify number of unselect speakers supported.				
2.9	The console audio interface unit must support **automatic gain** control.				
2.10	The automatic gain control must have a minimum 20 dB range. Specify range supported.				
2.11	Automatic gain control must be able to be enabled or disabled separately for transmit and receive and set by system administration software.				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
2.12	**The console audio interface unit** must provide an interface to the call handle audio unit so the audio from the call handling system uses the console headset.				
2.13	The console audio interface unit must have adjustable levels configurable in software for the connection to the call handling operator audio unit.				
2.14	The console audio interface unit must have a contact input that connects to the call handling unit which will indicate the phone is off hook to allow console audio routing, moving the select audio off headset to select speaker.				
2.15	The operator console system must provide a contact output for busy status to trigger indicator lights (supplied by desk manufacture) to indicate when the operator is transmitting on the radio console.				
2.16	List any other indicator light functions that the operator console system supports.				
2.17	Specify if the console equipment has a microphone mute feature which mutes the all microphone audio, and indicates the mute function is enabled. Provide details.				
2.18	The console audio interface unit **headset jack** must be industry standard PJ 327 dual tip/ring/sleeve jack supporting 4W and 6W push to talk (PTT) operation.				
2.19	Indicate if the headset jack is part of the console audio interface unit or a separate headset box.				
2.20	Supply a rugged **PTT footswitch** with a non-skid weighted base to be provided for each console which will activate the operator console general PTT.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• the foot pedal must have equal distribution for the pressure sensitivity across the full pedal width • the cable must not require a proprietary connector to connect to the console position • the foot pedal must be a minimum of 16 inches long • specify longest foot pedal available • provide details on available foot pedals				
2.21	Supply three (3) speakers for each console: • one (1) for select and two (2) for unselect • the console speakers must be individual speakers • each speaker must have an individual volume control • the speaker must be configurable so the volume control cannot fully mute the speaker output • specify how the speaker is powered, and what LED indications are provided on the speaker **NOTE:** computer speakers with balance controls rather than independent volume controls are not acceptable				
3.0	**ANALOG RADIO INTERFACES**				
3.1	Supply solid-state embedded radio over internet protocol (ROIP) radio interface units that interface analog radio equipment to an IP network. Initial system to support fifty-six (56) radio channels; twenty-eight (28) at each of the two dispatch locations.				
3.2	The device must work in conjunction with the servers to provide interoperability with radios from different manufacturers.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
3.3	Specify if the radio interface unit supports remote monitoring and control of external devices by relay outputs and input monitoring.				
3.4	Specify if the radio interface supports an IP connection to two (2) separate servers.				
3.5	The radio interface must support multiple CODECS to allow optimization of bandwidth use with minimal impact on voice quality. Specify CODECS supported.				
3.6	Tone generation and decoding must be performed in the radio interface unit.				
3.7	Radio interface units using potentiometers for audio level control are not acceptable.				
3.8	Radio interface units must be remotely administered and protected via user authentication.				
3.9	The ability to remotely download firmware updates and upload/download configuration files must be supported.				
3.10	The radio interface unit must provide LED indications of TX and RX status as well as network status.				
3.11	The system must support redundant radio interfaces. The system must use the radio interface units at the active dispatch location unless the system determines that interface unit has failed. In that case the system must connect to the other sites radio interface units to connect to the radio system.				
3.12	The maintenance software must have the ability to force the system to use the radio interface equipment at either site.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
3.13	The radio interface unit must detect a COR signal from the radio.				
3.14	Specify if the radio interface unit supports serial connectivity for control/status of radio technologies requiring such an interface.				
3.15	The radio interface unit must support selecting a frequency of the transmitter, if the station supports this function.				
3.16	The radio interface unit must support an audio delay to avoid clipping of transmissions.				
3.17	The radio interface unit must support PTT keying delay. This is a configurable time that the PTT is keyed up before tones are sent.				
3.18	The radio interface must support four (4) wire audio interfaces.				
3.19	The radio interface must support two (2) wire audio interfaces.				
3.20	The radio interface must support simplex or duplex audio.				
3.21	Simplex audio mode must only allow audio in one direction, ie when operator transmitting, receive audio from field must be blocked.				
3.22	The radio interface unit transmit to analog radio system must support a range. +10 dbm to -30dbm 600 ohms. Specify range supported				
3.23	The radio interface unit receive levels from the analog radio system must support a range + 10dbm to -30dbm 600 ohms. Specify range supported.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
3.24	Our default levels will be 0 dbm for average audio levels (ie %66 percent radio modulation) or +2dbm full test.				
3.25	The radio interface unit PTT signaling to radio must support E&M, (individual keying or COR lines).				
3.26	PTT signaling to radio: E&M must be configurable to: 1. Idle= open, PTT on = ground. 2. Idle =ground, PTT on = open. 3. Idle = +V, PTT on = ground.				
3.27	PTT signaling to radio: E&M voltage should be + V = 12 volt or allow external bias.				
3.28	COR detect from radio: E&M must be configurable to: 1. Idle= open or +V, COR on = ground. 2. Idle =ground, COR on = open OR +V.				
3.29	PTT signaling to radio must support EIA standard tone control on two (2) wire or four (4) wire.				
3.30	The radio interface unit must have the ability to generate tones for transmission to the radio, either as an answerback event or upon a command from the operator.				
3.31	Tone keying to radio must have tone levels adjustable referenced to main levels.				
3.32	The radio interface unit must support outgoing paging formats of: 1. Two tone sequential (quick call 2). 2. DTMF. 3. Specify other paging or standard tone formats				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	supported.				
3.33	The radio interface unit must support incoming tone decoding of: 1. DTMF. 2. Configurable tone frequency. 3. Specify other standard tone formats supported.				
3.34	Specify if incoming tone decoders parameters are adjustable such as rejection, DTMF twist limits, etc.				
3.35	Specify if the dispatch console system supports other vendors ROIP interface units, and which units are supported.				
3.36	All settings and adjustment must be configurable by management software. All required management software to configure and operate the system must be supplied.				
4.0	**ANALOG TELEPHONE INTERFACES AND ROUTING**				
4.1	Supply analog telephone interfaces for twenty-eight (28) telephone lines, fourteen (14) at the primary dispatch center and fourteen (14) at the backup site. The units must be IP connected to the servers.				
4.2	Ten (10) of the telephone interfaces at the two sites will connect to Telus analog loop start phone lines and will be used for normal operations. Reference these as the main trunk group.				
4.3	Four (4) of the telephone interfaces at each of the two sites will connect to either satellite or cellular telephone units. Reference these as the secondary trunk				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	group(s). Initial plans would be to have these split into two (2) secondary trunk groups, cell lines, and satellite lines. These must be configurable in the management software.				
4.4	Telephone trunks will be loop start.				
4.5	Specify types of trunk rotation supported on outgoing lines.				
4.6	**Overflow to other dispatch center for the main outgoing telephone trunks:** when there is only a specific number of free telephone trunk at the active dispatch center, additional outgoing calls will be routed to the main trunks at the other dispatch center. This number of free trunks will be configurable. When all the trunks are busy at the alternate center the system must continue outgoing calls at active center.				
4.7	**Overflow to secondary trunk groups:** if all other main telephone trunks are busy or out of service, the system must use the secondary trunks for outgoing calls. The option to use these secondary trunks groups must be configurable in the management software.				
4.8	**Manual alternate outgoing trunk selection**: outgoing dispatch calls will normally use the main trunk group. There needs to be a method where the operators can select one of the secondary trunk groups for outgoing calls.				
4.9	Specify if there is any automatic gain control on incoming telephone audio, if so, specify range.				
4.10	Nominal telephone transmit levels must be -2 dbm for average voice levels equivalent of 66% radio deviation.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	Full test levels are 0dbm.				
4.11	Telephone transmit levels must be configurable. Specify range.				
4.12	The telephone interface units must decode: • caller ID to be used for routing incoming calls from agency to specific agency dialog box • dual tone multi-frequency (DTMF) • dial tone • connect systems incorporated (CSI) interconnect go ahead tone • capable of decoding other tones Specify other tone decoding standards supported.				
4.13	The telephone interface units must be able to generate: • DTMF • two tone sequential page tone • user programmable tones • specify other standard tone formats supported				
4.14	**Testing telephone line availability:** the console system must regularly test the telephone trunks by taking the trunk off hook and checking for dial tone. The time between testing must be configurable.				
4.15	Support the ability for the management software to busy out a telephone trunk, so it is not used for outgoing calls and it must take the phone line off hook towards the Telco so incoming calls will not use that line.				
4.16	Support the ability to pick a specify trunk for outgoing in the administration software.				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
4.17	The system must optionally support T1 telephone trunk from the Telco.				
5.0	**CONNECTION TO TELEPHONE INTERCONNECTS** either Zetron 45B or CSI wireless technologies interconnects**:** Currently we use Zetron 45B interconnects for the backup connection for radio primary agencies, and for both primary and backup connections for telephone primary agencies				
5.1	The system must support Zetron 45B telephone interconnects for connection to agency radio systems via telephone lines.				
5.2	The system must support CSI wireless technologies interconnects for connection to agency radio systems via telephone lines.				
5.3	The system must meet the following telephone interconnect functionality. The steps are the connect/page/disconnect sequence for interconnects: 1. Operator clicks voice connect, or specific page button. 2. Console system connects to a telephone line and takes it off hook. 3. Connects audio to console.				
5.4	The console system confirms dial tone.				
5.5	If no dial tone is detected the system flags the trunk as bad and informs the operators and try's next free trunk.				
5.6	Once dial tone is detected, the system starts the connect timer and dials the agency telephone number. Indicate on the agency GUI "CONNECTING"				
5.7	If connect timer expires before next step				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• display "CONNECT ERROR" on agency GUI status • flash the background color to RED • play an error tone • the error tone and background color flashing stops when the error is acknowledged. This applies to any console which has the agency GUI open. **NOTE**: See agency operations and GUI section 6.32 and 6.33 on acknowledging errors.				
5.8	Connect error timer must be configurable per agency basis for telephone primary, and for telephone backup.				
5.9	The field interconnect will answer the call and respond back to the console with a tone. The system must decode dial tone (Zetron 45B) or the CSI go ahead tone (or configurable tone(s)).				
5.10	If the system decodes the interconnect tones the system must: • display CONNECTED on the agency GUI status • send DTMF digits for a voice connect or a specific page button pushed (Zetron send 2 digits of DTMF, for CSI the console sends DTMF string= (CONNECT CODE, CAP CODE and *)				
5.11	When sending page DTMF or page tones, indicate on the agency GUI status "SENDING (page name)" Once complete change agency GUI status to (page name) SENT.				
5.12	Transponder DTMF decoding and GUI actions: If the system is decoding and actioning field transponder				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	DTMF the system will: • start a timer when the page DTMF or tones are sent • waits for the field transponder equipment to respond with a DTMF string • if any DTMF digits are decoded before the timer expires the system updates the status as page name transponder OK • if no DTMF digits are decoded before the timer expires the status displayed is page name transponder failed • this is a brief description of the process, for more details See: o section 6.23 Transponder DTMF decoding o section 6.24 Transponder DTMF decoding system test page o Appendix D-1 Option 2 Cost for Transponder GUI actions				
5.13	Page button pressed while connected: • if an agency is using a Zetron interconnect the console sends two-tone or other page tones over the channel, or the alternate function below • if connected to a CSI interconnect the console sends the specific DTMF cap code string for the specific page				
5.14	Alternative Zetron page button pressed while connected: a configurable option for an agency using a Zetron interconnect and on backup, to prompt operator to disconnect and send page again instead of sending page tones in band. **NOTE**: Satellite and cell systems often do not transmit in band tones reliably.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
5.15	**Disconnect sequence:** when agency GUI disconnect button is pressed • send two (2) seconds of DTMF#, start the disconnect timer • disconnect timer must be configurable per agency • on agency GUI status show "DISCONNECTING"				
5.16	Disconnect sequence: wait for far end off hook signal on the telephone line, then disconnect the telephone line.				
5.17	**Disconnect sequence option:** configurable option to set the agency to send two (2) seconds of DTMF# and disconnect telephone line without waiting for Telus on hook signal. Configurable per agency basis for either telephone primary or backup.				
5.18	**Disconnect sequence error:** if the far end off hook signal on the telephone line does not occur before the disconnect timer has expired this must: • initiate a DISCONNECT ERROR. • the agency GUI status must show DISCONNECT ERROR • the background must flash red on all consoles with the agency GUI open • an error tone must be played only on the console which initiated the disconnect				
5.19	**Disconnect sequence:** once disconnect show agency GUI in disconnect state.				
5.20	**Forced disconnect:** if there is a disconnect error the operator can override the error and disconnect the agency by:				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• double tapping the disconnect button with one (1) second between taps • this will prompt the dispatcher with a SMALL GUI display “are you sure to force disconnect” with a YES and NO button If YES is pressed the console must send the two (2) seconds of DTMF# then hang up the telephone line and continue with the disconnect sequence.				
5.21	**Inbound connect request:** the agency equipment allows the agency personal to dial a DTMF sequence on their radios, which then initiates the telephone interconnect to dial the pilot number of the telephone trunks. The system must: • upon detecting ringing on the telephone trunks, the console system must decode the caller ID tones, and look for a match in the agency interconnect numbers data base • if there is a match the incoming queue must show the specific (AGENCY NAME) CONNECT REQUEST				
5.22	**Connect request alerting:** once the caller ID process has completed the dispatch console must alert the operator of incoming connect request. The system must: • generate in incoming connect request tone. Configurable in the administration software • the incoming call queue must show the incoming call • the status screen must flash the agency box background color see section 7.1				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
5.23	If the agency GUI is open while a connect request is occurring the agency GUI status must show INCOMING CONNECT REQUEST.				
5.24	If there is no match to the caller ID, the incoming queue must display unknown agency X CONNECT REQUEST (where X starts at one (1) and increments depending on how many unknown agency inbound calls are connected. There needs to be a method to answer an unknown agency connect request and open an unknown agency GUI box. See 6.39 unknown telephone agency GUI box.				
5.25	**Connect request answer**: the console system must answer the incoming call if the operator opens the agency GUI or selects the agency.				
5.26	**Unintentional Disconnect**: while an agency is connected via telephone, if the telephone interface unit detects a far end on hook signal on the telephone line from the Telco, the console system must: • hang up the telephone line • the following alerting must happen on any console that has the agency GUI box open • show UNIINTENTIONAL DISCONNECT on the agency GUI status • flash the agency GUI status red • play an alert tone • stop the alert process once an operator acknowledges the error. See section 6.32, 6.33 acknowledge errors.				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
6.0	**AGENCY OPERATIONS AND AGENCY GRAPHICAL USER INTERFACE.** The system must support the following GUI elements, GUI functions and agency functions.				
6.1	The operational screen GUI elements and layout must be configurable using the administration software.				
6.2	The console operations must be accessible by touch screen.				
6.3	The screen fixed GUI elements, and the agency GUI boxes, sizes, color, text, fonts and placement must be configurable using the administration software.				
6.4	The standard **agency GUI box** initial design must contain: • a title bar with name of Agency, and mode it is in, ie Radio Link, Telephone etc • window close X • a receive audio indicator that flashes on incoming audio on the agency channel • status section: showing agency status as disconnected, connect, page messages, error message etc. • various function buttons: o INST XMIT, Instant transmit o ACK – acknowledge errors o VOICE – connects to agency no paging o GROUP PAGE o OFFICER PAGE o DISCONNECT o SELECT o BACKUP, switch to backup GUI o OTHER- opens secondary GUI with other page buttons, intown page etc				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
6.5	The various GUI windows layout, size and buttons and other GUI elements, locations, sizes, text, and functions must be configurable by administration software.				
6.6	**Agency GUI title bar**: • color: blue on primary, yellow on backup, white when not connected • the top of the title bar will display agency name, the bottom the connection method. The text will be configurable				
6.7	**Receive audio indicator:** part of an agency GUI box. • flashes when audio is detected on the agency channel • it will have a timer to set how long it flashes for after the channel audio has stopped • configurable in administration software				
6.8	**Agency GUI title bar** • color: blue on primary, yellow on backup, white when not connected • the top of the title bar will display agency name, the bottom the connection method. The text will be configurable.				
6.9	**The agency GUI box can be opened by** an alphabet select pad with buttons A-Z, 0/#. Pushing one of these letters will list all the agencies starting with that letter, then clicking on a listed agency or function will open that GUI.				
6.10	**The agency GUI box can be opened by** clicking on the name of the agency on the status screen.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
6.11	Specify any other methods available to open an agency GUI or other function GUI box.				
6.12	The agency GUI boxes must be movable by the operator but must snap into place and not overlap other boxes.				
6.13	Agency GUI placement. Agency GUI boxes must open on the operations screen starting at top left if no agency GUI boxes are open. The next agency GUI box must open below the opened one, then procced down and over for additional agency GUI boxes that are opened. The agency GUI box must normally not overlap one another.				
6.14	The agency GUI box must not be allowed to close if the agency is still connected and the agency GUI box is only opened on that console. If open on multiple console an agency GUI box can be closed while connected.				
6.15	**Disconnected state:** normally the agencies are in the disconnected state, with no audio paths to the consoles. The agency dialog box status must indicate it is in the disconnected state.				
6.16	**Connection to agency via radio primary**: clicking VOICE button on an agency GUI for a radio interface simply connects the agency radio system channel to the specific console audio system. The agency GUI status must show CONNECTED.				
6.17	**Connect to agency via telephone interconnect**: pushing voice or page buttons must start the connection process to the specific agency device. See section 5 Connection to Telephone interconnects.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
6.18	**Paging agency:** when a page button is pressed, the radio interface must PTT to the channel and send the paging tones. The agency GUI status must show SENDING (PAGE NAME). See section 5 for telephone interconnect paging sequence. If the agency is not connected when a page button is pressed, the console must automatically connect to the radio interface and then send page tones.				
6.19	Once the pages tones have completed the agency GUI status must indicate (page name) PAGE SENT.				
6.20	Transponder DTMF decoding and actions: See Section 6.23 Transponder DTMF decoding, section 6.24 Transponder DTMF decoding system test page: Appendix D-1 Option 2 Cost for Transponder GUI actions				
6.21	If another console opens an agency GUI that is already connected it must open in the connected state and in the applicable primary or backup state, allowing the operator to hear agency audio and transmit to that agency. There must be a configurable side tone to indicate the operator has opened the box.				
6.22	When an operator transmits to an agency the audio must only be transmitted outbound to the agency channel and not to the other consoles, unless the agency GUI is open at the other dispatch center.				
6.23	**Transponder DTMF decoding** after the page tones are sent to the agency, the agency transponder equipment sends back a 4-digit DTMF code and a voice message. The console system must: • if any DTMF digit is decoded set a flag the page				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	was OK • include this in the system activity logs, ie (agency name) (page name) transponder DTMF decode OK and digits decoded • provide this functionality on radio and telephone interconnect				
6.24	**Transponder DTMF decoding system test page:** twice a day our operators send a page to all agencies that does not trip the agencies pagers, but the field transponder equipment responds with a DTMF code and voice message. The system must: • after page tones are sent, set system test timer • wait for transponder DTMF decoding see above • if DTMF is decoded within the timer window: o set agency GUI status to SYSTEM TEST TRANSPONDER OK • if timer expires before DTMF decoded: o set agency GUI status with SYSTEM TEST TRANSPONDER ERROR, and flash background purple o flash agency box on status screen purple o when error acknowledged the background color stops flashing • provide this functionality on radio and telephone interconnect • the system test timer must be configurable per agency. Two global configurable system test timers.				
6.25	**Disconnecting radio agency**: pressing DISCONNECT must: • send a disconnect tone for a specific duration.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	Initial settings would be to send 2 seconds of DTMF # • this tone must also be sent to the select channel at a configurable level • the audio connections are removed from the console(s) to the agency radio interface • the agency GUI status must show disconnected • the disconnect tones, levels and duration must be configurable See section 5.16 for telephone interconnect disconnect sequence.				
6.26	**Connect request from agency radio system**: if the radio interface decodes the connect request sequence, the console system must start the connect request process for that agency. • our current connect request is DTMF code is *11 • the connect request DTMF code must be configurable in the management software • the connect request must alert the dispatcher even if the agency is already connected				
6.27	Incoming connect request must: • play a connect request alert tone on the logged in consoles and add the agency name in the incoming queue • see section 7 for status screen CONNECT REQUEST • this also applies to a connect request from telephone interconnects section 5. • this tone must be settable for frequency, duration and level in the management software				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
6.28	**Emergency connect request from agency radio system**: same process as the normal radio connect request other than: • uses a different DTMF string than the normal connect request string • the emergency connect request DTMF code must be configurable in the management software • the agency GUI status and agency queue display emergency connect request • the emergency connect request uses a different alert tone • this tone must be settable for frequency, duration and level in the management software				
6.29	On an incoming connect request, or emergency connect request, opening the agency GUI or selecting an agency GUI already open must connect the console to the specific interface device, and stop the connect request alerting.				
6.30	Clicking on the incoming connect request or emergency connect request in the incoming queue must open the agency dialog and connect the console to the agency and stop the connect request alerting.				
6.31	**Error notification:** when an agency is actioned (connect, disconnect, page etc.) and an error occurs: • the error type must be shown in the agency GUI status • the background changed to flashing red, and an error audio alert transmitted to the operator • this applies to connect and unintentional disconnect errors on telephone connections, and where the process cannot procced to system				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	failures etc. • if the error is a transponder error the same process occurs but the color is purple • the error beep must be configurable in the management software for beep frequency, duration and interval time or use a wave file				
6.32	To **acknowledge errors**, the agency GUI must have an ACK (acknowledge) button: • pushing this button stops the red flashing background and the error tone • once the error has been acknowledged the agency GUI status must still show the error message with red background • the error message in the GUI status must clear on the next action that uses the GUI status • if the error is a transponder error the same process occurs but the color is purple				
6.33	The system must have the capability of a **global ACK button** that would have the same function as above but acknowledging errors function for any error indications on that console.				
6.34	**Ability to abort GUI functions:** specify if the system has a method to abort a function once it is started. For example: • if a page button is pressed for a telephone interconnect can it be canceled before the process completes?				
6.35	**Switching agency to backup**: the agency GUI must have a button to switch the agency to an agency backup GUI which will connect to the agency by a				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	different communications link.				
6.36	Pressing the BACKUP button if the agency is **not** connected will: • switch to the agency backup GUI in the same screen location, closing the primary GUI box • the backup agency GUI title bar must show agency name and (backup type). Backup type is configurable, IE telephone backup, MSAT backup etc. • the backup agency GUI will then access the resources it is set for ie telephone interconnect via satellite etc.				
6.37	Pressing the backup button if **the agency is connected** will prompt the dispatch to disconnect the primary.				
6.38	**Switching agency to primary connection:** the backup box must have a button labelled PRIMARY. Pushing this button will behave the same as the backup button but the functions will be switched to the primary GUI box, with the appropriate status messages.				
6.39	**Unknown telephone agency GUI box**: This is used when an incoming telephone connect request has no match for the caller ID that was decoded so the system cannot activate a known agency box. The initial design for the GUI would be: • a title bar with Unknown Agency X where X incremented with the number of unknown telephone agencies connected • window close X • a receive audio indicator that flashes on incoming				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	audio on the agency channel • status section: showing agency status as Disconnected, connect, page messages, error message etc. • various function buttons: o INST XMIT, Instant transmit o ACK – acknowledge errors o DISCONNECT o SELECT				
6.40	**Prince George Fire Rescue Services (PGFRS) paging GUI:** a GUI which has various individual and group pages for the PGFRS agency. Push a page button will send the page(s) on the PGFRS page channel. Have ability for a button to have a group of pages that are sent one after another. The **PGFRS paging GUI** initial design must contain: • a title bar with name PGFRS PAGING, and mode it is in, ie radio link, telephone etc • window close X • status section: showing agency status as page messages, error message etc. • various function buttons: o INST XMIT, Instant transmit o ACK – acknowledge errors o PAGE Buttons labeled for Page name, assigned a specific two tone page, or group of pages o DISCONNECT o SELECT o BACKUP, switch to backup GUI				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	o OTHER- opens secondary GUI with additional PAGE BUTTONS				
6.41	**IN-TOWN PAGE GUI:** a GUI which has various pages for the Prince George area volunteer fire departments. The **IN-TOWN PAGE GUI** initial design must contain: • a title bar with name IN-TOWN PAGING • window close X • status section: showing agency status as page messages, error message etc. • various function buttons: o INST XMIT, Instant transmit o ACK – acknowledge errors o PAGE Buttons labeled for Page name, assigned a specific two-tone page, or group of pages o DISCONNECT o SELECT o BACKUP, switch to backup GUI o OTHER- opens secondary GUI with additional PAGE BUTTONS				
6.42	**IN-TOWN PAGE GUI function:** once the in-town page GUI is opened, when a specific page button is pressed the system will: • PTT the in-town page channel with a specific keying tone frequency to select the agencies frequency for the in-town paging radio • send the agencies specific two-tone paging • if the operator is selected on the in-town page box, when the operator PTTs, or if the operator pushes the instant transmit on the in-town page GUI the operator will transmit audio over the in-town page				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	channel • once the PTT is released the in-town page system is idled				
6.43	**Phone Fan out agency GUI:** these are agencies where the system calls a specific telephone number with no other automated functions. The GUI will have buttons assigned to various agency phone numbers. Pushing a button will connect the console to the phone trunk and dial the specific agency phone number. The initial GUI design will have: • a title bar with name of Agency, and PHONE FAN OUT • a window close X • a receive audio indicator that flashes on incoming audio on the agency channel • status section: showing agency status such as disconnected, connect, error message etc. • various function buttons: o INST XMIT, Instant transmit o ACK – acknowledge errors o PHONE BUTTONS – to call the agency numbers o DISCONNECT o SELECT o MORE – if more numbers needed				
6.44	**SIMUL-SELECT** touching/clicking the SIMUL-SELECT button must allow subsequently touched/clicked agencies to act in parallel. Transmit audio and PTT functions must be sent to all selected agencies simultaneously. Touching/clicking the SIMUL-SELECT button again must deactivate all the selected				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	agencies. Specify number of agencies that can be SIMUL-SELECTED.				
6.45	**SIMUL-SELECT paging.** for agencies that are SIMUL-SELECTED the pressing the SIMUL-SELECT page button will send to each agency their specific page tone for a specific page. This would be the page that is specified to be sent for SIMUL-SELECT paging.				
6.46	Specify other ways to send SIMUL-SELECT pages.				
6.47	SIMUL-SELECT paging must also function with telephone interconnects.				
6.48	**Agency Volume Control:** this function must allow the operator to adjust a selected agencies select and unselect audio levels. • the volume display must indicate the name of the selected agency for clarity • must have a minimum low level • must have an indication the volume of an agency has been changed from default				
6.49	**Patch Function**: ability to patch together agencies connections, and dispatch console. • specify how this functionality works on the GUI • specify limitations to patching, ie number of connections patched				
6.50	Specify if the patch function will work with: • telephone interconnect agencies • telephone call from a separate call handling system				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• does it have VOX so the telephone audio will key the radio agencies?				
6.51	Specify if the SIMUL-SELECT paging function will work with a group of patched agencies.				
6.52	**Group button**: agency group buttons must allow functions to be performed on a pre-set group of agencies. • touching/clicking a specific group button opens a specific group of agencies GUI windows • if optioned it will place all the agencies in multi select and allow PTT on the entire group • likewise, the entire group may be placed in unselect or patch, or reverted to default state				
6.53	**Supply an automated in-town paging system:** an automated system to send specific agencies page tones and recorded page message on a separate paging channel that covers the City of Prince George. • if an agency is specified as an IN-TOWN PAGE agency, when a group or officer page is initiated on the radio primary system or telephone backup, after the page is sent out to the agency, the system will record the next audio transmitted from the console while the PTT is active on that agency. • there must be an indication to the operator the IN-TOWN PAGE system is recording. • if the operator pushes the page button for an IN-TOWN PAGE agency, then does other activities on the console this must not affect the IN-TOWN PAGE process. • when the console PTT is released after the operator finished the page message the system				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	must stop the recording then check if the IN-TOWN PAGE channel is available. • if the IN-TOWN PAGE channel is available, the system will send the keying tones with the channel frequency tone for the IN-TOWN PAGE agency, followed by the two-tone paging, and then the recorded page message. This audio will also be sent to the initiating consoles un-select speaker. The level that is send to un-select speaker must be configurable. • if the IN-TOWN PAGE channel is busy, the IN-TOWN PAGE for this agency will be added to the IN-TOWN PAGE queue. The operator must be notified the IN-TOWN message has been queued. • if the IN-TOWN PAGE channel is busy due to another page to a different agency on the same console, the system must allow the recording and queuing of another IN-TOWN PAGE for this console • once the IN-TOWN page channel is available, the next IN-TOWN PAGE in the queue must be sent over the IN-TOWN PAGE system • the initiating console must have an indication of this activity • **manual IN-TOWN PAGE on agency GUI box**: each agency that is specified to use the IN-TOWN PAGE system should have a GUI button to enable a manual IN-TOWN PAGE • when the operator presses the manual IN-TOWN PAGE button. If the IN-TOWN PAGE channel is available the system should send the keying tones and channel frequency for the agency, then send the two-tone page.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• the agency GUI status should indicate the IN-TOWN page is being sent • once the page tones have been sent, and when the operator is selected on the agency and pushes PTT on the console, the transmit audio should send over the IN-TOWN PAGE channel • once the PTT is released, the manual IN-TOWN PAGE process is completed, and the agency GUI functions returns to normal				
6.54	**Support Agency GUI history:** a function to list the activity on the specify agency in a small pop up GUI. The following items must be supported: • it must list the actions that have occurred on the agency with a time stamp for each item • actions displayed in the list would be connect, disconnect, pages sent, disconnect, connect requests, agency errors, the system test transponder errors and transponder status option • scroll buttons to move the list content up and down • the list must show this activity that was actioned from any console • the duration of the list history configurable in the administration software • the initial design is to have this linked to the agency GUI status box so touching the status bar would bring up the history GUI box • initial design is to have this screen fit over the agency GUI just below the agency GUI title bar, so it does not obscure another agency or screen fixed GUI element				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
6.55	**Pre-alert tone:** an optional tone sequence to be sent to the agency before the page tones are sent. This must be enabled/disabled, and configurable per agency in administration software.				
6.56	**Dial Screen:** this button must cause the dial screen to appear on the dispatch screen. From this screen manual DTMF dialing as well as contact autodial must be performed. If a telephone line is selected to make an outbound call.				
6.57	**Instant Call Recording and playback:** must be available to each console position enabling playback of receive audio on a per console basis. • it must record on select channel, each individual un-select channel, and console telephone audio channel • selection of a call entry must automatically commence call playback on a pre-designated speaker • it must have the capability to fast forward, reverse through an audio recording, pause audio playback • have capability to move to the next or previous audio in the list or filtered list • instant call recording retention must be configurable up to 24 hours • provide documentation of this function				
6.58	**Activity History:** each console position must be capable of providing an activity and audio history display. • activity history must display the operator console's receive audio activity to the dispatcher on a per-agency/per-transmission basis				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
	• filters must be included enabling an operator to segregate calls per instant call check channel (select, un-select(s), and telephone), and by agency • the activity history display must provide a scroll function • allow the operator to search history to view call activity • the activity history retention period must be configurable up to twenty-four (24) hours				
6.59	Incoming Activity History: indicate if clicking on an item in the activity list will launch the instant call check function and automatically play the audio				
6.60	**On screen PTT** and indicator Button: this graphic indicator must display the PTT status of the specific console and will activate the PTT on the selected agency when pressed.				
6.61	**Console PTT while caller is on Telephone:** if the dispatcher has a phone call connected on the telephone call handling system the console headset audio must route to the caller. • when the dispatcher PTT's to an agency on the dispatch console the transmit audio must only be transmitted to the agency not the telephone call • no clunk or other audio must be sent to the telephone call handling system when the PTT is activated • incoming telephone audio must route to the headset • the agency audio must be routed to the select speaker if the agency is selected while the phone				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	is off hook				
6.62	**Priority marker function**: On a selected agency when this this function button is pressed: • set the agency GUI status as priority marker, flash the background orange • set the status screen background for the agency flashing orange • this function sends a repeating beep over the channel • if the console system detects incoming audio on the channel, the beep is stopped until the channel is idle for a specific duration • the following should be settable in the administration software. Beep frequency and level, duration between beeps, and idle time after activity to restore beeps being sent. • when the agency is in priority marker mode, and is selected, pressing the priority marker button will stop the priority marker function for that channel and put the agency GUI status back to normal				
6.63	**Test tone button:** on agency boxes: a button to allow sending 1004 hz tone on connected agency channel at a specified level.				
7.0	**STATUS SCREEN** **NOTE: if there is an alternative method of providing this functionality attach details referencing this item.**				
7.1	The system must support a status screen for each console showing all the agency names in a fixed grid layout, grouped by area and function. The screen must indicate if the agency is connected on primary,				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	backup, and which consoles have the agency GUI open, and which are selected.				
7.2	The status screen agency status box background color: • is black if disconnected • is blue if agency is connected on primary • is yellow if connected on backup • if a connect request is incoming, flash the appropriate background color • if the agency has an error the background must initially be flashing red, then solid red after the error has been acknowledged • if the agency has a transponder error the background must initially be flashing purple, then solid purple after the error has been acknowledged				
7.3	Clicking on the agency name on the status screen must bring up the agency GUI.				
7.4	If the agency has an incoming connect request, clicking on the agency name on the status screen will answer the connect request and bring up the agency dialog box.				
7.5	The status screen agency status box showing consoles status: • along the bottom of the agency status box show a small square graphic with a number indicating the console(s) number which has the agency dialog box open • these must start at the left				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	• the preferred format would be 1, 2, 3, etc. The console numbers at the backup center would be 7,8,9,10. • if a console has the agency selected the console number small square graphic box background must be green • if a console is not selected on the agency, the small console number small square graphic box background must be white				
8.0	**DIGITAL RADIO INTEGRATION**				
8.1	The system must be capable of supporting radio functionality necessary to interface digital radio systems. As these systems require an expanded feature set and respective user interface control, the proposed product must support at a minimum: group and individual calls, emergency display and clear, call alerting, call progress tones, radio ID display (when available), and the ability to change talk groups.				
8.2	The system must support integration to P25 radio interfaces utilizing the APCO approved DFSI (TIA-102.BAHA) and CSSI (TIA-102.BACA) standards. Exclusive use of proprietary protocols will not be acceptable. Support phase 1 and 2.				
8.3	The system must support integration to P25 radio interfaces utilizing an intelligent control station method that provides advanced capability. Manufacturer specific protocols are acceptable for this method.				
8.4	The system must support integration to P25 trunked radio systems using the CSSI wire-line interface method for advanced capability. To minimize operator				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	confusion, the proposed console must intelligently route private calls to and from units from a single GUI control regardless of which RFSS the units are homed.				
8.5	List what proprietary DMR digit standards the system supports.				
8.6	**Encryption:** the system must be capable of supporting industry standard encryption algorithms, including AES and DES when required by the deployed radio infrastructure. P25 Key Fill Devices (KFD) must be supported to allow automated loading of encryption key sets.				
8.7	The system must have the capability of interfacing to the future public safety Broadband and Network Wireless network.				
9.0	**CONTROL, MAINTENANCE, DIAGNOSTICS AND DATA/MEDIA LOGGING**				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
9.1	**Centralized Administration:** the system must support an administrator software that provides for remote configuration and diagnostics for consoles, servers, and interface equipment. The administrator software must support user authentication to prevent unauthorized access. The administrator software must support live "push" configuration changes from a centralized database to any or all console positions without requiring users to log off.				
9.2	Centralized Administration: the administrator software must permit user interface changes to be created and tested in an off-line state. The off-line testing must include the screen layouts/navigation, graphical elements, browser addressing, and contact groupings to eliminate the risk of errors before distributing the changes. Once the reviewed designs are approved, the new configuration can be "pushed" or distributed to the live consoles.				
9.3	Centralized Administration: every screen element, from graphical backgrounds to button sizes, colors, and fonts, must be configurable by the administrator software. It must be easy to design, maintain, and deploy new console screens using the software.				
9.4	**Diagnostics and Data Logging:** the proposed system must include easy to use diagnostics for each component to assist in troubleshooting problems. Each of these components must be accessible via a standard Web browser, or through the administrator software. Detailed log files must be stored on the consoles PC, the servers, or a centralized database. If on a centralized data base, it must be a redundant or backed up at a regular interval.				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
9.5	A diagnostic logger must be available to centrally correlate the alarm and/or anomaly events within the proposed system. The diagnostic logger must denote the date/time of an event, the source component of the alarm or event, the alarm type, such as “Alarm” or “Event,” display the status of the event and include the severity of each such as Major or Minor for Alarms, and Low or High for system event anomalies. New arriving alarms must be indicated on selected console positions with visual and audible alerts.				
9.6	The diagnostic logging and logger must include the console and agency actions, and include the agency name and console number if applicable, at a minimum: • agency selected • agency on select speaker number • agency paged with page name sent • page sequences sent either cap code, or tone frequencies • agency error: ie connect or unintentional disconnect • agency transponder errors • agency transponder DTMF responses • DTMF, dial tone, or other specific tones decoded • telephone line accessed if applicable				
9.7	The diagnostic logger must allow filtering of data by applicable field data and at a minimum by: • alarm type • console or agency action console • agency • date and time range				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
9.8	The diagnostics logger must contain a "system view" that provides a snapshot of the system's networked components. Pertinent information must be provided for each component, allowing a quick way to check system health.				
9.9	The diagnostic system must have the ability to send emails to specified email addresses on specified types of alarms.				
9.10	The diagnostic system must have the ability to send SNMP traps.				
9.11	**Interface to External Data and Media Logging Archiving System**: the ability for the console system to interface with external data and medial logging system. Provide: • connections for recording analog audio • connections for recording IP streams • provide the external data logging and media archiving system with meta-data to tag the audio with addition information such as agency, audio channel, console position • support G711 a-Law and G711 μ-Law • provide details of analog and digital recording methods, meta data output the console and console equipment supports and other codecs that are supported. State reference to section and page number in proposal.				
10.0	**INSTALLATION, TESTING AND TRAINING**				

Appendix C-1 – Radio Dispatch Console System		**Compliant Standard Product**	**Compliant with Customization**	**Non-Compliant**	**State the variation being supplied if line item is noncompliant**
10.1	If the wining vender is not supplying all three systems, the radio console vendor must work with the call handling system vendor to confirm: • the headset audio and off hook detection is working with call handing audio box • the telephone connection from the call handing system will work with the radio console system to allow patching of a telephone call to the radio console • this must be completed before the radio console system is installed on site				
10.2	The RDFFG will provide configuration information and screen layouts to the winning vendor. The system must be configured to our requirements at the factory before factory acceptance.				
10.3	The vendor must have confirmed all operational requirements and functional testing before installing the equipment on site. Factory acceptance must be verified by RDFFG technical staff.				
10.4	The installation personnel must be supervised the vendors experienced technician or engineer.				
10.5	The vendor must confirm all operational requirements and functional testing are completed after installation, and these must be verified by RDFFG technical staff.				
10.6	Training technical staff: specify details for training RDFFG technical staff including hours provided. Training must cover theory of operation, troubleshooting techniques, system database entry, and emergency restoration procedures. Technical training must be conducted at a level of comprehension				

Appendix C-1 – Radio Dispatch Console System		Compliant Standard Product	Compliant with Customization	Non-Compliant	State the variation being supplied if line item is noncompliant
	suitable for an electronic technician. Required for 2 to 4 persons.				
10.7	Operator training: Provide on-site training for operators, tentatively for 6 to 8 persons, (train the trainer). Specify the details for operator training including hours provided. Are there online training tutorials available?				
10.8	Provide technical manuals, including as-built drawings, and operation manuals for each system that the proponent is providing. Provide three (3) hard copies of each of the manuals, as well as one electronic copy of each manual. The proponent is to include any upgrade supplements to keep documentation current when changes are made to the system(s).				

APPENDIX C-2 MINIMUM SPECIFICATIONS FOR CALL HANDLING/PHONE SYSTEM
PROPOSAL MINIMUM SPECIFICATIONS

If the specification is non-compliant on any of these specifications as outlined in Appendix C-2 this must be indicated by checking the "non-compliant" column, and then the third column on this form MUST be completed detailing what the variation being supplied is and the reason for the variation.

Where there is insufficient space in the columns provided to provide details, state section and page reference number where details can be found in the proposal.

Appendix C-2 - Call Handling/Phone System		**Compliant**	**Noncompliant**	**State the variance being supplied if line item is noncompliant.**
1.0	**OVERVIEW AND TECHNICAL**			
1.1	Supply call handling system to support NG911 Canada – NENA i3 Version 2 and 3, at ten (10) combined call handling/dispatch positions; as well as integrating thirty-two (32) analog non-911 lines, at these positions.			
	The system must support evolving Canadian NG911 NENA i3 standards and functionality. Please provide your strategy for following and upgrading your call handling platform to meet applicable NENA i3 version updates and changes.			
1.2	Support connection to the Telus NG911 network, and meet the Telus universal network interface (uni) specifications for next generation 9-1-1, such as QOS, encryption etc.			
1.3	Support two primary connections to Telus NG911 network, one at the primary dispatch center and one at backup dispatch center. Plus, two backup connections at each site.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
1.4	The system must include all required NG911 network components to interface to the Telus NG911 system, including redundant session border controllers and real-time monitoring and reporting to meet RDFFG cybersecurity requirements.			
1.5	NOTE: The RDFFG will supply firewalls between the Telus network and the call handling system at each center.			
1.6	The system must support multiple LAN connections, as the RDFFG will supply a redundant LAN to be used exclusively for traffic between the call handling system and the firewalls. All other IP traffic between the call handling servers and the operator position and non-NG911 line equipment will be on a separate network.			
1.7	Vendor must supply a minimum of two (2) redundant back end servers (unless integrated into radio dispatch console), one at the primary and one at the backup dispatch centers. Back end servers to be connected via the RDFFG data network over fiber and/or microwave.			
1.8	Specify the operating system the servers are using.			
1.9	The servers must have automatic and manual fail over capability. In a fail over event the system must maintain all active connections and switch			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	seamlessly to the backup server.			
1.10	In normal operations the call handling system must be able to use the telephone resources at both dispatch center locations concurrently.			
1.11	If there is a network failure between the two RDFFG dispatch centers both centers must remain functional.			
1.12	The system must support dual LAN with dual NIC cards and teaming.			
1.13	The system must provide two (2) data feeds to the RDFFG CAD, one for the primary connection and one for backup connection to CAD: • NG911 compliant CAD feed to our new CAD system See optional section for support for our current CAD system.			
1.14	The system must support a total of thirty-two (32) analog telephone trunks, eight (8) at each of the dispatch center locations for non-911 lines.			
1.15	NOTE: four (4) of the analog lines at each dispatch center location are outgoing trunks for non-911 calls.			
1.16	The system must support a minimum of eight (8) SIP lines for connection to other phone systems and the radio dispatch console.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
1.17	Provide ten (10) operator positions, including operator call handling software, audio interface units and speakers if required. Six (6) positions for the primary dispatch center and four (4) for the backup dispatch center.			
1.18	The call handling audio interface unit must integrate with the radio console headset audio system and support: • transmit and receive audio • provide a contact to the radio console which indicates the phone is off hook			
1.19	Vendor must provide the computer requirements for the call handling operator software. State reference to section and page number in proposal.			
1.20	The call handling operator software must be able to operate on a computer which would also be running the RDFFG CAD software.			
1.21	Each call handling position must have a local phone number assigned to it for internal phone calls.			
1.22	Sending DTMF to external non-911 numbers via the outgoing trunk group must support long DTMF tone. This is specifically required for the DTMF # so at least 1 second of DMTF # is sent to the Telco. This is required as the call answer system can used for backup to call a fire rescue agency telephone interconnect device and the long DTMF # is used to cause the telephone			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	interconnect device to hang up the line.			
1.23	The call answer screen GUI layout must be configurable. Provide details of this functionality. Is this functionality done on a normal workstation with different credentials or done with separate software? State reference to section and page number in proposal.			
1.24	Remote administration must be available through a secure VPN tunnel. Describe how this is achieved. State reference to section and page number in proposal.			
1.25	The system must include a built-in diagnostic function that will automatically monitor alarm conditions of the equipment and initiate audible and visual alarms in the event of any failure or disruption of the operation/recording processes. Provide details. State reference to section and page number in proposal.			
1.26	The system must be capable of automatic email notification upon the occurrence of technical and incident related critical events. Provide details. State reference to section and page number in proposal.			
1.27	Vender must provide a detailed overview of the proposed solution's architecture. Including LAN requirements between the two servers and to the operator call handling devices and the non-NG911			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	line equipment.			
1.28	The system must meet all Electrical Standards. The system must utilize 120-volt AC/60 Hz. RDFFG will supply power from the RDFFG UPS system. Specify the power load at each dispatch center in watts.			
2.0	**CODEC CHART**			
2.1	Must support G.711µ-law.			
2.2	Must support G.711 A-law.			
2.3	Specify if system supports EVS.			
2.4	Specify if system supports G.722.			
2.5	Specify if system supports G.729AB.			
2.6	Future support for AMR (a.k.a. AMR-NB). Please provide when it will be available.			
2.7	Future support for AMR-WB (G.722.2). Please provide when it will be available.			
2.8	Future support for OPUS. Please provide when it will be available.			
3.0	**BUSINESS REQUIREMENTS**			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
3.1	List the types of user roles that users can be assigned.			
3.2	State how many users can be created in the system: _____.			
3.3	State how many active users can be logged into the system at any given time: _____.			
3.4	State how the permissions are set up and administered. State reference to section and page number in proposal.			
4.0	**OPERATIONAL REQUIREMENTS**			
4.1	Vendor must provide an overview of the proposed solution and its call handling processes. State reference to section and page number in proposal.			
4.2	Solution must have a searchable contact management directory or global address book for frequently accessed numbers.			
4.3	Vendor must describe how the system queues calls. State reference to section and page number in proposal.			
4.4	The system must show the number of active calls, calls on hold, and calls handled for all categories of lines required by the center including 911, non-emergency, alarm, inter-agency, administrative and outgoing.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
4.5	An operator must, at all times, be able to obtain further information pertaining to any call presented to the system and/or any contact entered in the global address book.			
4.6	The system must display incoming 911 call information including all NG911 fields, such as class of service, caller number, location, address, etc.			
4.7	Every automatic number identification/automatic location identification (ANI/ALI) offered by the system is sent to the RDFFG CAD feed.			
4.8	The system must provide a function that enables the operator to initiate a CAD incident from a non-emergency call. This would send the available call information, ie. caller phone number, caller name, to the RDFFG CAD feed.			
4.9	The system should allow more than two (2) operators to listen in to an active call: • the other operator should be able to be connected to the call by just picking the lineup and then hearing all audio and being able to talk on the line • an audio indication is sent to the operator(s) already online when another operator joins the line.			
4.10	Is there a limit on the number of operators that can be on any one call? If there is a limit, please state the limit			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	number: _____.			
4.11	The system must allow an operator to monitor other operators' calls with transmit audio muted. Is there a notification that a line is in the mute state?			
4.12	An operator must have the option when conferencing calls to choose: • a "No Hold" or "Supervised" open line conference (such as 9-1-1 handoff), or • a "Hold" or closed line conference			
4.13	An operator must have the capability to conference a call that an operator has initiated on an outgoing line. (ie. If an operator calls out to fire department staff, once connected the operator can conference in another person into the call).			
4.14	State how many lines can be conferenced together: _____.			
4.15	Specify if there are any other limitations with conferencing. State reference to section and page number in proposal.			
4.16	Can the operator drop out of any type of conference call without disrupting the conference call? Preference is that the operator can release from any type of conference call. State what is being provided.			
4.17	The call queue must indicate if the call is a: • voice call			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	• real time text call • support future NG911 call types			
4.18	The system must support a status board displaying operator status by workstation. The status board at a minimum must indicate: • ready • busy • logged off • provide a full list of status board display options available. State reference to section and page number in proposal here.			
4.19	Can the status board: • be displayed on a separate screen not part of the operator console, and • be a window in the call handling/administrator environment?			
4.20	The system must support that unanswered transferred calls will ring back to the system.			
4.21	The system must allow an operator to initiate a call back to an ANI phone number, or caller ID number, with a single function press.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
4.22	Support caller validation. Recognition of incoming line where the incoming matches to the directory or previous calls. The system should be able to do call matching and display the potential name of the caller/agency if it is a match to the information in the call history or directory data.			
4.23	In the event of an incorrect ALI, the system must provide a function to allow the operator to append the ALI information to an email to be sent to a preconfigured email address. This will contain the system ANI information along with the corrections entered by the operator.			
4.24	Indicate if the proposed solution can handle geospatial routing. Include details in the proposal response. State reference to section and page number in proposal here.			
4.25	The system must support real time texting (RTT) also known as interactive texting. Provide details on how the system notifies the operator of an incoming interactive texting call or launches the interactive texting interface, and the interactive texting features and review capabilities. State reference to section and page number in proposal here.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
4.26	Indicate if the proposed solution has an audio/media playback module to: • playback audio • playback of other future NG911media Provide details. State reference to section and page number in proposal here.			
5.0	**INTERFACE REQUIREMENTS**			
5.1	The system must support a connection to an external data and media logging system where the call handling system sends media and meta-data from NG911 and non-911 lines to the external data and media logging system. Specify how this is accomplished. State reference to section and page number in proposal here.			
5.2	The system must support connection to the radio dispatch console system to allow a phone call to be patched to a radio channel. State reference to section and page number in proposal here.			
5.3	The system must support web feed capability, specific websites displayed on call handling screen, configurable to each user launched in a separate window.			
5.4	The system must provide the ability for a supervisor/coach to interject into or take over a conversation if needed and			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
	remotely 'mute' another operator.			
5.5	Describe what reporting or analytics can be completed in the system. State reference to section and page number in proposal here.			
5.6	Does the system support multiple separate "agencies" operating on the same servers, but accessing specific resources and using separate data and CAD?			
6.0	**INSTALLATION, TESTING AND TRAINING**			
6.1	The RFFG will provide configuration information and screen layouts to the winning vendor. The system must be configured to our requirements at the factory before factory acceptance.			
6.2	The vendor must have confirmed all operational requirements and functional testing before installing the equipment on site. Factory acceptance must be verified by RDFFG technical staff.			
6.3	The installation personnel must be supervised the vendors experienced technician or engineer.			
6.4	The vendor must confirm all operational requirements and functional testing are completed after installation, and these must be verified by RDFFG technical staff.			

Appendix C-2 - Call Handling/Phone System		Compliant	Noncompliant	State the variance being supplied if line item is noncompliant.
6.5	Training technical staff: specify details for training RDFFG technical staff including hours provided. Training must cover theory of operation, troubleshooting techniques, system database entry, and emergency restoration procedures. Technical training must be conducted at a level of comprehension suitable for an electronic technician. Required for 2 to 4 persons.			
6.6	Operator training: provide on-site training for operators, tentatively for 6 to 8 persons, (train the trainer). Specify the details for operator training including hours provided. Are there online training tutorials available?			
6.7	Provide technical manuals, including as-built drawings, and operation manuals for each system that the proponent is providing. Provide three (3) hard copies of each of the manuals, as well as one electronic copy of each manual. The proponent is to include any upgrade supplements to keep documentation current when changes are made to the system(s).			

APPENDIX C-3 MINIMUM SPECIFICATIONS FOR DATA AND MEDIA LOGGING SYSTEM
PROPOSAL MINIMUM SPECIFICATIONS

If the specification is non-compliant on any of these specifications as outlined in Appendix C-3 this must be indicated by checking the "non-compliant" column, and then the third column on this form MUST be completed detailing what the variation being supplied is and the reason for the variation.

Where there is insufficient space in the columns provided to provide details, state section and page reference number where details can be found in the proposal.

Appendix C-3 – Data and Media Logging System		**Compliant**	**Non-Compliant**	**State the variation being supplied if line item is non-compliant**
1.0	**MEDIA AND DATA LOGGING MAIN TECHNICAL SPECS**			
1.1	The media and data recorder system must be comprised of a high-reliability IP-based central recording device and workstation user interface. The system must directly capture, record, and archive audio streams, and data from the radio console equipment (console audio, radio systems and telephone lines used for radio interconnects), and the call handling system.			
1.2	The recording system will comply with the Canadian NG911 requirements, NENA i3 V2 and V3 standard for recording of NG9-1-1 primary interactions. The system will integrate with the 9-1-1 ANI/ALI call handling system for data and media logging.			
1.3	The system must provide audio play back and data analysis software for six (6) users.			
1.4	System Redundancy: the voice & data recorder system must be configured such that no single point of failure shall completely disable any channels connected to an individual interface board. Acceptable redundant architectures include but are not limited to:			

Appendix C-3 – Data and Media Logging System		**Compliant**	**Non-Compliant**	**State the variation being supplied if line item is non-compliant**
	• redundant servers • dual redundant hot-swap power supplies • dual redundant hard drives using a RAID 1 controller • dual redundant 10/100/1000 Ethernet connections (NIC bonding) • remote diagnostics capabilities • email notification of alarm notifications			
1.5	Specify the operating system the servers are using.			
1.6	The system call data database shall be a non-proprietary relational database.			
1.7	The system is required to record audio and data from the primary and backup dispatch centers.			
1.8	If the IP connection between the primary and backup dispatch centers fails, recording should continue at each location.			
1.9	If the servers fail over manually or automatically the system must maintain recording.			
1.10	The system must support dual LAN with dual NIC cards and teaming.			
1.11	The system shall support the following audio capture types: • analog • parallel digital extension phone • trunk T1 • SIP			

Appendix C-3 – Data and Media Logging System		Compliant	Non-Compliant	State the variation being supplied if line item is non-compliant
1.12	The system must integrate with the call handling system so non-911 calls are tagged with phone numbers called or incoming call numbers.			
1.13	The system must integrate with the RDFFG CAD system, so audio is tagged with incident number.			
1.14	The system must integrate with the dispatch console, so audio is tagged with agency and/or channel used.			
1.15	The system must record dispatch console audio at both dispatch centers for the 10 consoles. Total of 40 channels: • console telephone • console select channel • console un-select # 1 channel • console un-select # 2 channel			
1.16	The system must record audio at both dispatch center for the seventy-two (56) analog radio interfaces; thirty-six (28) at the primary and thirty-six (28) at the backup site. These might be recordable by IP as the dispatch console will connect to these interfaces via radio over IP (ROIP).			
1.17	The system must record audio at both dispatch centers for the twenty-eight (28) analog phone lines used for the dispatch console connections for agency telephone interconnects, fourteen (14) lines each at the primary and backup site. These might be recordable by IP as the dispatch console will connect to these interfaces via IP. The radio console equipment should provide meta-data so these recordings can be tagged with the agency being dispatched on the specific telephone trunk.			

Appendix C-3 – Data and Media Logging System		**Compliant**	**Non-Compliant**	**State the variation being supplied if line item is non-compliant**
1.18	The system must be capable of recording IP Unicast G.711 audio streams and support both full and half-duplex audio.			
1.19	The system must allow full-duplex TX and RX to be recorded as one mixed channel or two (2) separate channels.			
1.20	The system must support a minimum of 150 channels. Specify system channel limitations per type of channel, ie analog, IP, SIP.			
1.21	The system must support G711 a-Law, and G711 μ-Law codecs. Provide list of other supported codecs. State reference to section and page number in proposal.			
1.22	Recording Media Capacity: the voice logger must maintain at least twenty-four (24) months of accessible call history.			
1.23	The system must provide for backup of data to a NAS device and/or media that may be stored off site as required. All data must be archived. Provide details. State reference to section and page number in proposal.			
1.24	The playback/search software must work seamlessly with the backup data. If not, provide documentation on what is involved to playback archived data. State reference to section and page number in proposal.			
1.25	Telephone audio recording trigger must be configurable for: • VOX • telephone off hook status			

Appendix C-3 – Data and Media Logging System		Compliant	Non-Compliant	State the variation being supplied if line item is non-compliant
1.26	Alarm reporting: the system must be able to provide detailed device and user activity monitoring to track, visualize and rapidly alert to specific events, based on predefined rules that categorize event types by severity and other criteria. Must support email notification.			
1.27	The system must support SNMP traps.			
1.28	The system must support a configurable security to include the creation of unique user profiles (security accounts) allowing users to access only specified channels with specified functionality.			
1.29	The system must keep a full audit trail of all application access and security functions with details of who accessed the system and when, with details of what were changed or accessed.			
1.30	The system must meet all Electrical Standards. The system must utilize 120-volt AC/60 Hz. RDFFG will supply power from the RDFFG UPS system. Specify the power load at each dispatch center in watts.			
1.31	Vender must provide a detailed overview of the proposed solution's architecture. Including LAN requirements between the two servers.			
2.0	**MEDIA AND DATA LOGGING PLAYBACK SOFTWARE**			
2.1	The software must provide variable speed playback.			
2.2	The software must have the ability to listen to earlier parts of calls still in progress.			

Appendix C-3 – Data and Media Logging System		**Compliant**	**Non-Compliant**	**State the variation being supplied if line item is non-compliant**
2.3	Does the playback function have a display showing playing audio waveform?			
2.4	Does the playback function have a graphical mode which shows channel recording in relation to other channels in time? Provide details. State reference to section and page number in proposal.			
2.5	Does the software have the ability to export audio normally and in a secure format?			
2.6	Does the software have the ability to export audio with audio time stamps?			
2.7	Does the software have the ability to export audio with tags?			
2.8	Does the software have the ability to search calls and recorded media by: • date and time • phone number dialed • incoming caller number • incoming telephone trunk name • console ID number • radio console channel name or telephone trunk			
2.9	Does the software have the ability to search console telephone line recorded audio by any meta data provided by integration with CAD or radio console, for example CAD incident number, agency name etc.			
2.10	Does the software have advanced call finder ability to quickly find calls based on NG911 ID number, caller ID,			

Appendix C-3 – Data and Media Logging System		Compliant	Non-Compliant	State the variation being supplied if line item is non-compliant
	call duration, date and time, username, channel ID, call direction, incident ID, notes, and marked calls etc?			
2.11	Does the software have the ability to build and save search queries which can specify console number, channel name, an/or combination of any other applicable field, specific time ranges, and/or date ranges. Provide details. State reference to section and page number in proposal.			
2.12	Does the software have incident dashboards, that combine data from CAD, telephony, and radio that provides real time snapshots of performance across multiple dimensions? (Call volumes, durations and hold times, dispatch times, on scene response times, QA scores etc). Provide details. State reference to section and page number in proposal.			
2.13	The software must have the ability to evaluate everything from single interaction to complex incidents involving multiple channels. Give a complete picture of what happened per incident, including concurrent calls. Provide details. State reference to section and page number in proposal.			
2.14	The software must have the ability to schedule a percentage of calls to be randomly selected for evaluation use. CAD data to automate quality assurance call selection and scheduling to focus on certain or selected calls, ex: Structure Fires. Provide details. State reference to section and page number in proposal.			
2.15	The software must have reporting functions to export data to excel and/or word or create user friendly reports			

Appendix C-3 – Data and Media Logging System		Compliant	Non-Compliant	State the variation being supplied if line item is non-compliant
	via the software. Provide details. State reference to section and page number in proposal.			
3.0	**INSTALLATION, TESTING AND TRAINING**			
3.1	If the wining vender is not supplying all three systems, the data and media logging vendor must work with the radio dispatch console, call handling system, and CAD (computer aided dispatch) vendors to confirm all integration with their system is functional before installing on site.			
3.2	The RFFG will provide channel names and configuration information to the winning vendor. The system must be configured as much as possible to our requirements at the factory before factory acceptance.			
3.3	The vendor must have confirmed all operational requirements and functional testing before installing the equipment on site. Factory acceptance must be verified by RDFFG technical staff.			
3.4	The installation personnel must be supervised by the vendors experienced technician or engineer.			
3.5	The vendor must confirm all operational requirements and functional testing are completed after installation, and these must be verified by RDFFG technical staff.			
3.6	Training technical staff: specify details for training RDFFG technical staff including hours provided. Training must cover theory of operation, troubleshooting techniques, system database entry, and emergency restoration procedures. Technical training must be			

Appendix C-3 – Data and Media Logging System		Compliant	Non-Compliant	State the variation being supplied if line item is non-compliant
	conducted at a level of comprehension suitable for an electronic technician. Required for 2 to 4 persons.			
3.7	Operator training: provide on-site training for operators, tentatively for 6 to 8 persons, (train the trainer). Specify the details for operator training including hours provided. Are there online training tutorials available?			
3.8	Provide technical manuals, including as-built drawings, and operation manuals for each system that the proponent is providing. Provide three (3) hard copies of each of the manuals, as well as one electronic copy of each manual. The proponent is to include any upgrade supplements to keep documentation current when changes are made to the system(s).			

APPENDIX D-1 OPTIONAL FEATURES AND EQUIPMENT FOR RADIO DISPATCH CONSOLE SYSTEM

APPENDIX D-1 – Radio Dispatch Console System		**Price (excluding taxes)**
1.	Cost for **console intercom:** intercom to and from another operating position must be via a VOIP connection and initiated by touching/clicking a screen control corresponding to the called party. This would potential be used between centers. • the called party's console will flash intercom call along with console number or logged in username • the called console can answer the intercom call by touching the intercom button • the audio is routed to a specific select or un-select speaker, or a dedicated speaker • the microphone path must be configurable as full duplex or requiring PTT • there must be a one-way "announcement" mode that allows a console to broadcast a message to one, a group of, or all consoles	
2.	Cost for **transponder GUI actions for all other pages:** the same actions as for the system test transponder: • configurable to be used or not • after page tones are sent, set page timer • wait for transponder DTMF decoding • if DTMF is decoded within the timer window o set agency GUI status to (page name) TRANSPONDER OK • if timer expires before DTMF decoded: o set agency GUI status with (page name) TRANSPONDER, and flash background purple o flash agency box on status screen purple o when error acknowledge set stop flashing purple. The page timer must be configurable per agency with 2 options, short and long.	
3.	Cost for small keypad remote unit. This would be a small physical unit with various buttons, that allow certain functions to be performed by clicking a button on the pad. This pad is kept near the operator keyboard to allow functions to be done with minimal hand movement away from the keyboard or mouse. The specific button functions would be configurable in the administration software. An example of a button function would be answering an incoming connect request.	
4.	Cost for **automated system page testing:** a function to automatically send a system test to all agencies which are set to use this feature.	

APPENDIX D-1 – Radio Dispatch Console System		**Price (excluding taxes)**
	• the automate system test GUI must have the following buttons, multiple groups, primary, backup, concurrent, individual, send, stop • the sending of the automatic system tests must have the option to send them concurrently as listed below or optionally sent individually with a specific configurable time delay between the system test pages sent • the system must have groups of agencies to send to, which are configurable in the administration software • the groups can be set up to send to the agencies primary channel or agency backup channel • operator selects the group to send the automatic system tests to and can select to send to primary or backup and select to send them concurrently or individually • the agencies GUI boxes will not be opened for this process, but the status screen and any data logs will show the activity • if the agency GUI is open or is opened during this process, the system test on that specific agency is skipped or cancel. This will be logged as agency in use during system test. • the automatic system test will send system test page tones to all radio primary agencies in group concurrently • if the connection method to the agency is telephone interconnect the system must not use all of the available trunks. A fixed number of telephone trunks must be left free, this number must be configurable. • if there is a connect error on a telephone interconnect stop the process for that agency and flag it as “connect error”. Do not audio alert the operator, but show the status screen agency box as red. • if the transponder DTMF is returned within the timing window see Section 5.12. The agency system tests are flagged as SYSTEM TEST OK. • if the transponder timer expires, the agency system tests is flagged as “system test error”, no audio alert to operator, but status screen agency box background set to purple Once process is complete for the group the operator must be notified with a list showing agencies with errors at the top followed by the agencies that completed OK.	
5.	The cost for **mass agency notification:** the ability for the operator to record a voice message then send it to a group of departments. • it would use the same groups as defined in the automated system test paging above • mass notification GUI must have record, play, group select, send and cancel buttons • the operator records the message, selects the group to send the mass notification to and can select to send to primary or backup, then send	

APPENDIX D-1 – Radio Dispatch Console System		**Price (excluding taxes)**
	• the agencies GUI boxes will not be opened for this process, but the status screen and any data logs will show the activity • if an agencies GUI box is open show the normal status changes when sending the page • the system sends a group page to the agencies in the group • if there is a connect error on a telephone interconnect stop the process for that agency and flag it as a CONNECT ERROR. do not audio alert the operator, but show the status screen agency box as red • wait for a configurable time duration, then sends out the recorded message • disconnects the channel • if the connection method to the agency is telephone interconnect the system must not use all of the available trunks. A fixed number of telephone trunks must be left free, this number must be configurable. • once process is complete for the group the operator must be notified with a list showing agencies with errors at the top followed by the OK agencies The recorded message is saved until overwritten by recording it again.	
6.	Cost for **audio testing GUI**: a GUI box to enable sending of tones and displaying incoming tone levels to from the select channel or agency. The GUI must have: • frequency buttons that select a specific frequency, minimum 1 button with 1004hz • send button which will send the tone over whatever channel is selected. When the button is clicked again the tone stops. • transmit level buttons. Two button that allow stepping the transmit level up and down by 1 dBm (referenced to channel full test level). • transmit level display: display the selected transmit level • receive level display: the level of the incoming tone on the select channel in dBm (referenced to channel full test level).	
7.	Cost for **smart phone PTT function and cell phone application**: a system that provides an IP connection from a cell phone application via internet to connect a cell phone to specific agency radio interface. • a cell phone app that allows the user to connect to the console system via internet • credentials are required for user to connect • the operator is only allowed to connect to specific radio interfaces defined in the console system	

APPENDIX D-1 – Radio Dispatch Console System		**Price (excluding taxes)**
	• once connected the cell phone app allows the user to listen to audio from the radio interface from the field and from dispatch console system, and to transmit to the same • the usernames, credentials, radio interfaces allowed to access, enable or disable user must be configurable from the administration software A secure method must be employed for the IP connection to the console system.	
8.	Cost for quad redundant servers: two servers at each dispatch center.	
9.	Cost for spare server complete with software.	
10.	Cost for spare console IP interface box including headset interface.	
11.	Cost for spare speaker.	
12.	Cost for spare telephone interface unit. Specify type and ports.	
13.	Cost for spare radio interface unit. Specify type and ports.	
14.	Cost for spare console PC with software.	

APPENDIX D-2 OPTIONAL FEATURES AND EQUIPMENT FOR CALL HANDLING/PHONE SYSTEM

APPENDIX D-2 – Call Handling/Phone System		**Price (excluding taxes)**
1.	Provide cost to supply two (2) supervisor call handling positions, one at each center. Is this the same software as the standard user with just a different logon? Can a blue tooth headset be used and not require an audio interface box?	
2.	Provide cost of mapping module. Shows incoming NG911 call locations on a map. Specify features and benefits of mapping module. Indicate what mapping framework it is built on (i.e., ESRI, ArcGIS, Google, Bing).	
3.	Provide cost difference if using T1 PRI for telco lines instead of analog lines. In final configuration there would be a T1 PRI at the primary dispatch site and one at the backup site with ten (10) lines on each PRI. There will still be a requirement for four (4) analog lines at each location for connection to satellite or cellular units.	
4.	Provide a cost difference if using SIP for telco lines instead of analog lines. In final configuration there would be ten (10) SIP lines at the primary dispatch site and ten (10) at the backup site. There will still be a requirement for four (4) analog lines at each location for connection to satellite or cellular units.	
5.	Provide cost of ACD. Include details (i.e., round robin, etc.) and indicate if this can be overridden for training purposes. The system should provide a wrap-up capability for ACD. This function, if implemented, must permit an operator to remain unavailable to take calls and allow the specified idle time to perform other post call administrative functions. The wrap-up time must be configurable as fixed duration in seconds or after an operator manually uses a feature button. Describe how this is achieved.	
6.	Can the call handling system support a telephone unit in place of computer software for non-operator use? If yes, please specify options and cost.	
7.	Provide cost for two (2) data feeds to our CAD system, one for primary and one for backup connection to CAD, that supports our current FDM CAD. The system must support this non-NG911 feed and emulate the Telus TID-08 CAD feed specifications.	
8.	Provide cost difference if the system uses a T1 PRI from Telus for the sixteen (16) non-911 lines at both dispatch center locations (total of 32) in place of the analog lines.	

9.	Provide cost difference if the system uses SIP lines from Telus for the sixteen (16) non-911 lines at both dispatch center locations (total of 32) in place of analog lines.	
10.	Provide cost for Quality Assurance, Quality Improvement Analysis (QA/QI) functionality. **Note:** this might be a function of the data and media logging equipment. For QA/QI analysis: ability to extract stats such as those noted below: • video recording of screen actions, push button operations, remote control operations (if so equipped) and keyboard strokes • call offer to answer time • answer time to post or commit CAD incident • appropriate answer/greeting sequence • call duration • calls per operator • calls per incident • busy times per hour, per day, per operator • customizable comparative analysis capability Note: this is not an exhaustive list. The data should be accessible locally and remotely by administrators.	

APPENDIX D-3 OPTIONAL FEATURES FOR DATA AND MEDIA LOGGING SYSTEM

APPENDIX D-3 – Data and Media Logging System		**Price (excluding taxes)**
OPTIONAL FEATURES		
1.	Cost for Quality Assurance, Quality Improvement Analysis (QA/QI): For QA/QI analysis, the ability to extract stats such as those noted below. **Note**: this is not an exhaustive list. The data should be accessible locally and remotely by administrators: • video recording of screen actions, push button operations, remote control operations (if so equipped) and keyboard strokes • call offer to answer time • answer time to post or commit CAD incident • appropriate answer/greeting sequence • call duration • calls processed by each user • calls per incident • busy times per hour, per day, per operator • number of inbound and outbound voice calls including 9-1-1, 10-digit emergency, non-emergency and administrative • number of calls by type e.g. 9-1-1, hotlines, administration, etc. • number of abandon calls • peak demand periods • average time spent by users on inbound emergency calls • percent of calls answered within the industry defined targets and/or per local policy Customizable comparative analysis capability.	

APPENDIX E-1 SCHEDULE OF PRICES FOR APPENDIX C-1
MINIMUM SPECIFICATIONS FOR RADIO DISPATCH CONSOLE SYSTEM

Price submitted below reflects the full cost, excluding taxes, for the new Radio Dispatch Console System as specified in RFP CS-20-02 Appendix C-1 Minimum Specifications for the new Radio Dispatch Console System. This price sheet must accompany the bid package submitted.

Contract Price C-1(not including taxes) $_____

GST $_____

PST $_____

Other (please specify) $_____

TOTAL $_____

Maintenance Agreement – 1 Year Term $_____

Maintenance Agreement – 5 Year Term $ _____

For each of the "Maintenance Agreements" please provide package options, details and pricing:

_____
_____
_____
_____

Licensing Fee(s) $_____

Please provide licensing fee details below:

_____
_____
_____
_____

Delivery Requirement is to August 31, 2020.
State Delivery Date being Submitted: _____

Authorized Signatory Signature	Name of Proponent
Name (Please print)	Address
Title	City, Province, Postal Code
Phone Number	Email
Date	

APPENDIX E-2 SCHEDULE OF PRICES FOR APPENDIX C-2
FOR CALL HANDLING/PHONE SYSTEM

Price submitted below reflects the full cost, excluding taxes, for the new Call Handling/Phone System as specified in RFP CS-20-02 Appendix C -2 Minimum Specifications for the new Call Handling/Phone System. This price sheet must accompany the bid package submitted.

Contract Price C-2(not including taxes) $_____

GST $_____

PST $_____

Other (please specify) $_____

TOTAL $_____

Maintenance Agreement – 1 Year Term $_____

Maintenance Agreement – 5 Year Term $ _____

For each of the "Maintenance Agreements" please provide package options, details and pricing:

_____
_____
_____
_____

Licensing Fee(s) $_____

Please provide licensing fee details below:

_____
_____
_____
_____

Delivery Requirement is to August 31, 2020.
State Delivery Date being Submitted: _____

Authorized Signatory Signature	Name of Proponent
Name (Please print)	Address
Title	City, Province, Postal Code
Phone Number	Email
Date	

APPENDIX E-3 SCHEDULE OF PRICES FOR APPENDIX C-3
FOR DATA AND MEDIA LOGGING SYSTEM

Price submitted below reflects the full cost, excluding taxes, for the new Data and Media Logging System as specified in RFP CS-20-02 Appendix C -3 Minimum Specifications for the new Data and Media Logging System. This price sheet must accompany the bid package submitted.

Contract Price C-3(not including taxes) $_____

GST $_____

PST $_____

Other (please specify) $_____

TOTAL $_____

Maintenance Agreement – 1 Year Term $_____

Maintenance Agreement – 5 Year Term $ _____

For each of the "Maintenance Agreements" please provide package options, details and pricing:

_____
_____
_____
_____

Licensing Fee(s) $_____

Please provide licensing fee details below:

_____
_____
_____
_____

Delivery Requirement is to August 31, 2020.
State Delivery Date being Submitted: _____

Authorized Signatory Signature	Name of Proponent
Name (Please print)	Address
Title	City, Province, Postal Code
Phone Number	Email
Date	

APPENDIX F VALUE-ADDED SYSTEM BUNDLING CONSIDERATIONS

If the Proponent is providing a bid submission for more than one system contained in this RFP, please provide comment detailing any value added or cost savings benefits that the proponent would provide if the Regional District were to award more than one system to the proponent.

APPENDIX G PROPONENT QUALIFICATIONS AND CAPABILITIES

Proponents should ensure their proposal provides response to the following questions for each of the systems the Proponent is submitting a bid for:

	Question	Proponents Response
1.	How long has your company been in business and how long has your company been selling the proposed system(s)?	
2.	How many installations of this system are there in total? How many of them are running similar system(s)?	
3.	How many installations of these system(s) are based in Canada?	
4.	How many support personnel are assigned to the system(s)? Do support personnel also program/maintain the system or have other duties than support?	
5.	Where is your support center located for the system(s)? Do you have any support personnel in Canada?	

	Question	Proponents Response
6.	Do you have dedicated quality assurance staff for testing and documentation?	
7.	NENA i3 is an evolving standard and Proponents are expected to comply with the necessary upgrade paths and remain compliant with the Canadian requirements. The system must be upgradable to accommodate future IP-based media including in-line text, video, and graphics as such media becomes accepted for use in public safety. This must be available with minimal costs and effort e.g. routine software upgrades at operator answering positions and/or the addition of small components to the system. Such upgrades must not require complete replacement of major system components. Subsequent system upgrades will be backward compatible with the proposed solution. Detail how you will comply with this evolving standard in the future.	

FIGURE #1: RDFFG FIRE DISPATCH SYSTEM TRANSITION LAYOUT

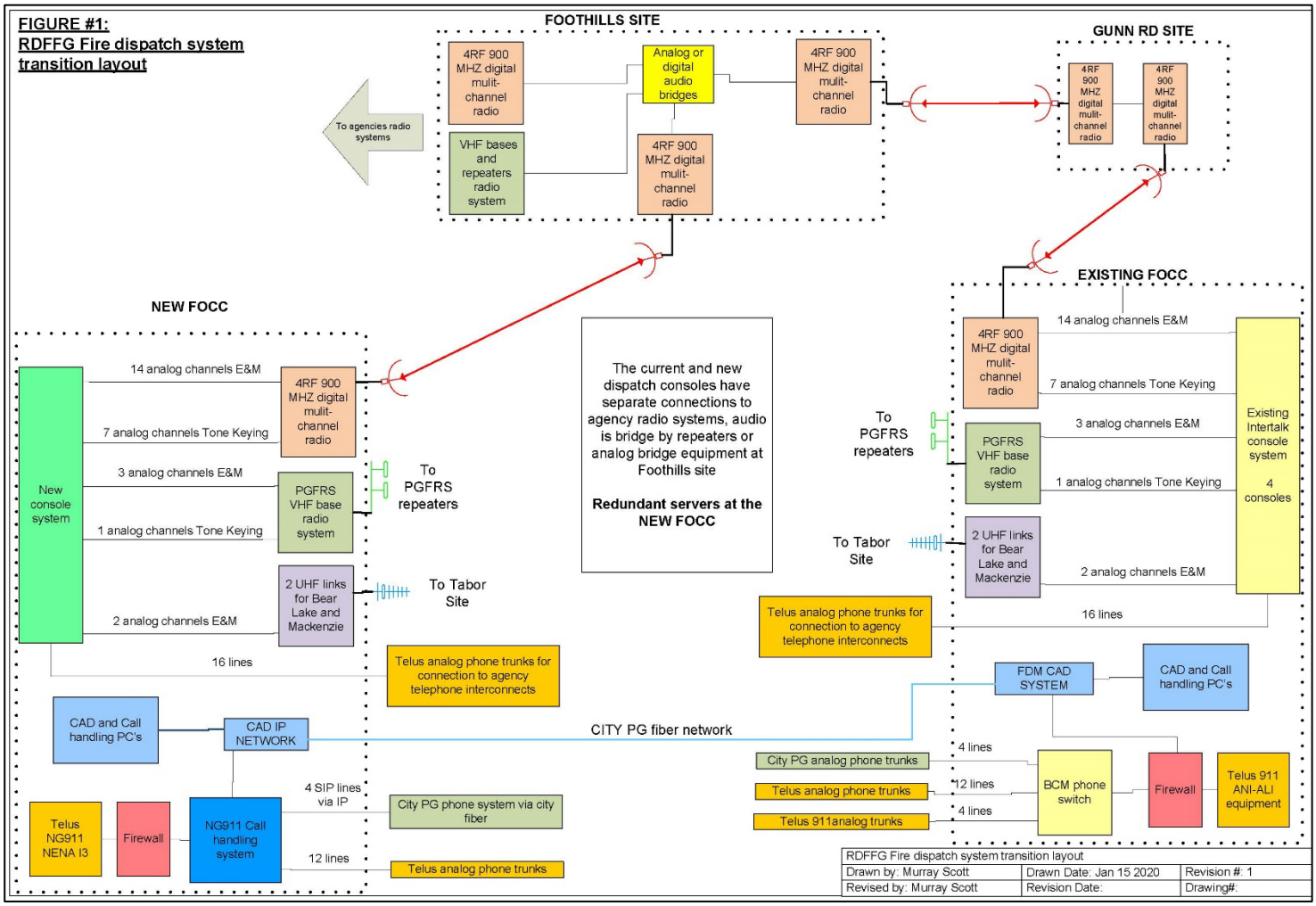

FIGURE #2: RDFFG FIRE DISPATCH SYSTEM NEW FOCC AND BACKUP SITE