



Contract 2830P
Emergency Notification System

1 INTRODUCTION

The City of Richmond is requesting proposals for the supply and installation of an Emergency Notification System (ENS) that will be used to notify members of the public, City staff and other individuals in the event of an emergency or other situations requiring rapid dissemination of information.

The objective of this Request for Proposal is to provide the City with firm price proposals from qualified Proponents capable of supplying the system and carrying out the work herein defined. The subsequent Proponent submissions will form the basis for evaluation, interview, demonstration and selection.

2 SUBMISSION DETAILS

Three (3) bound copies, one (1) unbound copy and one (1) digital copy on CD-ROM of proposals marked "**Contract 2830P Request for Proposal – Emergency Notification System**" addressed to the Purchasing Section, will be received at the Information Counter, Main Floor, Richmond City Hall, 6911 No. 3 Road, Richmond BC V6Y 2C1 until **4:30 PM local time, on Tuesday, May 16, 2006**. Submissions received after this time will be returned to the sender.

The City reserves the right to cancel this Request for Proposal for any reason without any liability to any Proponent or to waive irregularities at its own discretion.

Proposals shall be irrevocable until the City awards this Contract or cancels this Request for Proposals, whichever first occurs.

All proposals will remain confidential, subject to the Freedom of Information and Protection of Privacy Act.

Any interpretation of, additions to, deletions from, or any other corrections to the Proposal document, will be issued as written addenda by the City of Richmond. It is the sole responsibility of the potential Bidders to check with the City of Richmond's Website, BCBid and/or the Purchasing Section to ensure that all available information has been received prior to submitting a bid.

3 ENQUIRIES

Clarification of terms and conditions of this proposal process shall be directed to:

Purchasing

David Phipps – Supervisor
Purchasing Section
City of Richmond
Richmond, BC V6Y 2C1

Tel: 604-276-4287

E-mail: purchasing@richmond.ca

Technical

Derrick Lim - Emergency Coordinator Tel: 604-233-3330
City of Richmond
5599 Lynas Lane
Richmond, BC V7C 5B2 E-mail: dlim@richmond.ca

Enquiries regarding matters that affect the nature of this document will be conveyed to all parties receiving this document.

The City, its agents and employees shall not be responsible for any information given by way of verbal communication.

4 PROJECT DESCRIPTION

The City of Richmond recognizes that the public has high expectations of government at all levels to respond quickly to emergencies and rapidly provide information to the public and emergency responders regarding actions to be taken.

As a result, in 2006, the City plans to implement an emergency notification system that will be used to notify members of the public, City staff and other individuals in emergency scenarios other situations requiring rapid dissemination of information.

Various stakeholder groups involved in emergency management and response within the City, including RCMP (police), Fire, Public Works, Corporate Communications, BC Ambulance, Richmond Health Services and the Emergency Management office have identified the uses and needs for such a system.

The primary applications for an emergency notification system are:

- **Public Notification** – to enable the rapid dissemination of information regarding emergency evacuations, flooding, boil water advisories, toxic gas release, road closures, etc.
- **Blockwatch** – to notify residents and businesses of crime patterns and issues in specified areas
- **Internal Notification** – to support staff call-out and enable the mobilization of emergency response personnel, EOC staff and emergency volunteers

The ENS will be central to the City's public notification and alerting plans in the event of a localized emergency or disaster within the City. However, the system will be augmented by other methods of public alerting utilized by other levels of government (e.g. broadcast media) in certain types of emergency scenarios.

The ENS is also planned to support inbound calling for the purpose of receiving notifications, confirming receipt and providing information updates.

5 PROJECT SCOPE

This RFP is requesting firm price proposals from qualified Proponents for the following:

- Supply of on-site emergency notification system hardware and software
- Configuration, installation and testing of the ENS system, including any required data conversions or geo-coding of telephone number databases
- Provision of hosted IVR capacity and notifications on an ongoing basis

- Provision of initial and extended warranty, training and technical support services

This RFP does not include the following:

- Supply of telephone circuits (PRI) for connection to PSTN
- Supply of Internet access facilities
- Supply of GIS database
- Supply of telephone number database, if required
- Provision of 911 database access services¹

6 SYSTEM REQUIREMENTS

Detailed functional requirements are provided in Appendix I. Detailed technical requirements are provided in Appendix II.

Proponents are requested to provide a point-by-point response to all items in Appendices I & II, including detailed information on how the proposed solution meets these requirements.

A summary of the key requirements is provided below

- Hybrid system configuration with 23 ports (1 PRI link) of on-site IVR capacity with additional capacity provided by a hosted IVR service
- Geographic targeting of public notification, integrated with the City's GIS database
- List and group-based based notification
- Predefined notification scenarios and messages
- Notification via telephone, TDD, email, fax, pager and cellular SMS
- Web-based administration and activation of notifications
- In-bound calling for message retrieval, receipt confirmation and "bulletin board" information service
- XML-based external system interfaces
- Redundant hardware platform or data backup services²

7 PROJECT SCHEDULE

The following timetable outlines the anticipated schedule for the RFP process and system implementation. The timing and the sequence of events resulting from this RFP may vary and shall be ultimately determined by the City.

Event	Anticipated Date
Request for Proposal issued	April 12, 2006

¹ The Canadian Radio and Telecommunications Commission (CRTC), which regulates public telecommunications carriers in Canada is currently undertaking a proceeding to establish a tariff for 911 database access services for emergency notification. At the time the tariff is established, the City will implement an interface to the local 911 database, however the implementation of this is not included in the current RFP scope.

² The City will not purchase data backup or hosted notification services if they require notification databases to reside in the United States due to privacy concerns associated with the Patriot Act.

Request for Proposal closes	May 16, 2006
Short-listed Proponent Demonstrations	June 1-7, 2006
Proposal evaluation completed	June 15, 2006
City approval and preferred Proponent notified	June 30, 2006
Contract is signed	July 15, 2006
Installation Commences	August 1, 2006
System Functional	August 15, 2006
Administrator and Operator Training	August 15-31, 2006

***** Please note that all dates are subject to change within 24 hours notice.**

8 PROPOSAL SUBMISSIONS

Proponent responses are required to follow the format provided below:

Section 1 – Summary of Proposal

- A Cover Letter providing the following:
 1. The Request for Proposal (contract) number
 2. Legal name of the Proponent, Proponent's address, Proponent's telephone number and e-mail address of a contact person
 3. Signature, date, printed name and title of a person authorized to sign on behalf of the Proponent
- A short (less than 4 pages) Executive Summary covering the following:
 1. Key features of the proposed ENS system
 2. Corporate experience in supplying ENS systems and services
 3. Customer references and contact information, and
 4. Pricing and schedule highlights

Section 2 – Proposal Details

- Proposals shall incorporate a Table of Contents, including page numbers.
- Provide a detailed description of the technical architecture and design of the proposed ENS system, including:
 1. Description of hardware and software platforms
 2. System capacity limitations
 3. Support of hardware redundancy and provision for on-site or off-site backup
 4. Supported telephone number and GIS database formats
 5. Supported external system interfaces and API's
- Provide a detailed, point-by-point response indicating compliance to the functional requirements in Appendix I

- Provide a detailed, point-by-point response indicating compliance to the technical requirements in Appendix II
- Provide additional information as requested in Appendices I and II
- Provide a detailed schedule for delivery, configuration and installation of the system in Gantt chart format
- Provide a summary of planned product and feature enhancements and the associated schedule
- Provide a description of the training services offered and method of delivery (on-site, Web-based, on-site train-the-trainer, etc.)
- Provide license terms for all software components; indicate where there are unlimited, per concurrent user, per account, etc. license fees
- Provide a description of initial and extended warranty services provided for hardware and software
- Provide a description of technical support services offered and hours of operation
- Where hardware or software is to be supplied by third parties, provide the manufacturer's specifications and description of that hardware or software
- The Proponent should demonstrate their ability to meet the requirements outlined in this RFP by supplying at least five (5) recent (within the past 3 years) client references for similar projects, including at least three (3) municipal government clients

Section 3 - Pricing

Pricing for the various components of the system and support services, including software licensing, shall be provided in the format specified by the table in Appendix III. Proponents may break out pricing into more detail than specified in Appendix III if they wish.

Prices quoted are to be:

- a) in Canadian dollars;
- b) inclusive of duty, where applicable; FOB destination, delivery charges included where applicable; and
- c) exclusive of Goods and Services Tax (GST)

The applicable BC Provincial Sales Tax (PST) rates payable for each item shall be specified.

By submission of a proposal the Proponent warrants that the pricing provided is complete and all components required to supply the specified ENS system are identified in the proposal or will be provided by the Contractor at no charge (excluding items identified in section 5 above).

9 WORKING AGREEMENT

The successful Proponent will enter into a contract with the City for the supply of hardware, software and services based upon the information contained in this request for proposal and the successful Proponent's submission and any modifications thereto. Proponents may include their standards terms for the supply of hardware, licensing of software and provision of support services.

10 EVALUATION CRITERIA

10.1 MANDATORY CRITERIA

The following are mandatory requirements. Proposals not clearly demonstrating that they meet them will receive no further consideration during the evaluation process.

Criteria	
1.	The proposal must be received at the closing location by the specified closing date and time.
2.	The proposal must be in English and must not be sent by facsimile or e-mail.
3.	Four (4) hard copies and one (1) electronic copy of the proposal must be submitted as indicated in section.
4.	The Proponent must confirm it can supply an on-site telephone and text-message based geographic ENS system with hosted IVR capability.

10.2 DESIRABLE CRITERIA

Proposals meeting the mandatory requirements will be evaluated using the weighted desirable criteria provided in the table below:

Criteria	
<u>Qualifications and Experience – 30%</u>	
1.	The Proponent should have significant experience in supplying telephone and text-message based geographic ENS systems to municipal government clients.
<u>Feature Set and Ease Of Use – 40%</u>	
2.	Proposals will be evaluated against the requirements identified in Appendix I and II.
3.	ENS systems will be specifically evaluated for ease of use and the ability of the City to ensure a high level of proficiency in system administration and activation among a diverse set of Users, many of whom will only utilize the system occasionally.
<u>Pricing – 30%</u>	
3.	The proposal should include pricing for completion of the full scope of the project requirements and the assumptions on which this is based.
4.	Price proposals will be evaluated using the following methodology: <ul style="list-style-type: none"> Score (out of 30) = Proponent price / lowest price x 30

11 ABBREVIATIONS AND DEFINITIONS

Refer also to the definitions provided in Appendix I and II.

Within this RFP, the following definitions apply:

- **API** – Application Programming Interface
- **Contractor** – a Proponent selected as a result of this RFP that has executed a contract with the City for the implementation of an ENS
- **ENS** – Emergency Notification System
- **GIS** – Geographic Information System
- **IVR** – Interactive Voice Response
- **PRI** – Primary Rate Interface
- **Proponent** – an entity submitting a proposal in response to this RFP
- **RCMP** – Royal Canadian Mounted Police
- **SMS** – (cellular) Short Message Service
- **TDD** – Telecommunications Device for the Deaf

APPENDIX I – FUNCTIONAL REQUIREMENTS MATRIX

The Proponent shall complete the following table based on the required scope of work provided in section 5 and the work plan and price proposal it has provided:

The following definitions shall apply in this Appendix (and elsewhere in this RFP document):

- Administrator – a person authorized by the City to perform technical administration of the ENS system, including scheduling and performing database backups, updating software, establishing User permissions and authorization levels and configuring external system interfaces
- Contact Database – the database within the ENS system which stores information associated with all potential recipients
- Group – a set of recipients, some or all of whom will be designated to receive a particular notification
- “on-the-fly” – components of a notification, such as a message, group or scenario that are defined at the time the notification is activated
- Recipient – a person receiving a notification, either a member of the public, a member of City staff or any other person designated by the City to receive notifications, e.g. emergency volunteers, Blockwatch participants, etc.
- Scenario – a set of attributes associated with a particular notification, including the name of the situation to which the scenario applies, the Groups to be notified, the specific messages to be delivered, the notification methodologies and logic to be applied, etc.
- User – a person authorized by the City to administer the Contact Database, Groups and Scenarios and authorized to activate notifications; Users will exist within various City departments and may have varying levels of authority or scope to perform administrative functions

The key to the requirement Type is as follows:

- M = Mandatory – the requirement must be met for the proposed system to be considered fully compliant to the City’s requirement.
- D = Desired – the requirement describes a capability that the City considers to be desirable but optional.
- I = Information – the Proponent shall provide supplementary information as to how the system proposed meets the stated requirement

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
<u>Contact Database</u>					
1.1	The system shall incorporate a Contact Database containing the following types of entries: <ul style="list-style-type: none"> • Individuals • Residences • Businesses 	M			
1.2	The system shall support the entry and storage of standard personal information for <u>individuals</u> in the Contact Database, including: <ul style="list-style-type: none"> • Name – first, last, middle, title, etc. • Home address • Spouse name and address • Date of birth • Emergency contact person 	M, I			
1.3	The system shall support the entry and storage of contact information for multiple devices for each individual in the Contact Database, including: <ul style="list-style-type: none"> • Phone numbers, including home, work, fax, mobile phone, pager, etc. • Email and SMS addresses (up to 5 entries) 	M, I			
1.4	The system shall support the entry and storage of standard information for <u>residences</u> and <u>businesses</u> in the Contact Database, including: <ul style="list-style-type: none"> • Primary contact name • Street and mailing address • Location coordinates • Primary language 	M, I			
1.5	The system shall support the entry and storage of contact information for multiple devices for each residence and business in the Contact Database, including: <ul style="list-style-type: none"> • Phone Numbers, including home, work, fax, mobile phone, pager, etc. • Email and SMS addresses (up to 5 entries) 	M, I			
1.6	The Contact Database must be able to store at least two entries for all devices (home, work, fax, mobile, pager, email).	M			
1.7	The Contact Database must be able to store the sequence of devices to be notified for each entry.	M			
1.8	The Contact Database must be able to automatically modify the sequence of devices on a time-of-day and day-of-week basis.	M			

Reqt. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
1.9	The system shall support the following additional predefined fields for individuals: <ul style="list-style-type: none"> Employee number Organization (up to 5 entries per individual) Department (up to 3 entries) Position (up to 3 entries) Skills (up to 32 entries) Work location (including building, floor and zone) The Administrator or a User with appropriate privileges shall be able to define or restrict valid entries in all fields.	M, I			
1.10	The system shall support a minimum of sixteen (16) additional User-defined fields per entry in the Contact Database.	M, I			
1.11	The system shall support XML-based interfaces to the City's personnel database and other databases that shall automatically synchronize a subset of personal and contact information on a daily basis.	D, I			
1.12	The Contact Database shall be searchable on any field.	M			
1.13	The Contact Database shall be able to store an unlimited number of entries. For the purpose of pricing, Proponents should assume the database is to be sized for 100,000 residences, 25,000 businesses and 5,000 individuals.	M			
1.14	The Contact Database shall be able to automatically poll contacts via email and enable contacts to update their own contact information via a secure web interface.	M, I			
1.15	The system shall provide an audit utility that can be run by an authorized User to identify: <ul style="list-style-type: none"> Residences or businesses that have duplicate entries in the Contact Database The assignment of the same contact telephone number to multiple residences or businesses in the Contact Database 	D, I			
<u>Group-Based Notification</u>					
2.1	The system shall deliver notifications to groups of individuals through the selection of notification Groups.	M			
2.2	The system shall support both static (or predefined) Groups and dynamic Groups that can be generated using search criteria associated with any field in the Contact Database.	M, I			
2.3	Users shall be able to build notification Groups by selecting and assigning contacts individually into Groups "on-the-fly".	M			
2.4	The system shall support at least 2000 notification Groups.	M, I			
2.5	The system shall support at least 4000 contact entries in each notification Group.	M, I			

Reqt. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
2.6	The system shall allow a contact to be in any number of Groups.	M			
2.7	The system shall enable Group information to be exported in multiple formats. Proponents should describe the formats available.	M, I			
2.8	The system must enable Users to sort individuals within Groups by any field within the Contact Database.	M			
2.9	The system shall allow the notification of multiple Groups simultaneously and allow a Group to be used in more than one notification simultaneously.	M			
2.10	The system shall enable recipients within a Group to be notified in priority order. Priority of a recipient within a Group may be different across the various Groups that recipient belongs to.	M			
<u>Geographic Targeting of Notification</u>					
3.1	The system shall deliver notifications to residences and businesses based on their geographic location, as selected through a map on graphical user interface.	M			
3.2	The system shall deliver notifications to individuals within a Group based on the geographic location of their business or residence, as selected through a map on graphical user interface.	M, I			
3.3	The graphical user interface shall display maps automatically derived from the City's GIS database, which utilizes the ESRI format.	M, I			
3.4	The system shall enable a User to select a geographic notification area on a map using any of the following methods: <ul style="list-style-type: none"> • Selected distance from an incident location (buffer zone) or geographic feature (e.g. river) • Selection tools, including circle, rectangle and user-defined polygon • Region corresponding to predefined zones or boundaries within a municipality 	M, I			
3.5	The User shall be able to select a geographic notification area defined through the union or intersection of two or more areas defined in 3.4.	M			
3.6	The system shall provide the ability to specify for notification, within the geographic area selected, residences only, businesses only or both.	M			
3.7	The User shall be able to filter geographic notification lists based on searchable criteria in the Contact Database.	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
3.8	The system must provide geographic notifications according to the following progressions: <ul style="list-style-type: none"> • North to South or vice versa • East to West or vice versa • Closest to farthest from the incident • Farthest to closest to the incident 	M, I			
3.9	Users must be able to control the appearance of maps and specific points within maps (e.g., colors, symbols, shapes, etc.), including displaying and editing attribute information for any feature on any map layer.	M			
3.10	Users must be able to control the scale of the map display.	M			
<u>Scenario-Based Notification</u>					
4.1	The system shall deliver notifications by the selection of predefined Scenarios.	M			
4.2	The system shall deliver notifications by the selection of Scenarios defined “on-the-fly”.	M			
4.3	The system shall support at least 2000 predefined Scenarios.	M, I			
4.4	Scenarios shall include the following elements: <ul style="list-style-type: none"> • Scenario name and identifier • Scenario priority • Whether geographic or Group-based notification applies (or both) • Groups to be notified • Message(s) to be delivered • Method(s) of message delivery • Message logic to be applied 	M, I			
4.5	The system shall be capable of storing an unlimited number of predefined voice and text messages to be assigned to any number of Scenarios.	M			
4.6	The system shall allow any number of Groups to be assigned into a Scenario.	M			
4.7	The system shall provide the ability to determine the order of notification and priority of the Groups within a Scenario.	M			
4.8	The system shall provide the ability to define the number of individuals within a Group that are to be notified for each Scenario (a subset of the entire Group).	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
<u>Notification Methodology</u>					
5.1	The system shall support notification by the following methods: <ul style="list-style-type: none"> • Telephone – to landline, mobile phone or voice mail • Facsimile • Cellular short message service (SMS) • Pager • Email • TDD (telephone device for the deaf) 	M, I			
5.2	The system shall support the following message types: <ul style="list-style-type: none"> • Voice (pre-recorded) • Voice (recorded on-the-fly) • Text (pre-defined) • Text (defined on the fly) • Text-to-speech 	M, I			
5.3	The system shall be able to automatically deliver notifications in sequence to contact numbers or devices in the Contact Database such that if a Recipient is not available on the first device, the system will try the next device on the list and so on until the Recipient is successfully notified.	M, I			
5.4	The system shall allow Users to designate the number of times the system will attempt to reach Recipients, and the amount of time to wait between attempts.	M			
5.5	Users must be able to over-ride information in the Contact Database in order to limit the type of notification devices used for a particular notification, e.g. telephone only, email only, etc.	M, I			
5.6	Users must be able to assign a different sequence for communication devices after normal working hours and on weekends.	M, I			
5.7	Users must be able to define the maximum duration of the notification, after which time the notification is terminated. The duration shall be settable anywhere between 5 minutes and 30 days.	M, I			
5.8	The system shall be capable of executing multiple notification Scenarios simultaneously, each using a variety of notification methods.	M			
5.9	The system must provide the capability to assign specific messages to specific types of devices.	M, I			
5.10	The system must be capable of automatically reporting to the User (message sender) whether Recipients have confirmed message receipt.	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
<u>Telephone Notification</u>					
6.1	The system shall provide the ability to deliver predefined or on-the-fly telephone (voice) messages associated with all Scenarios and notifications.	M			
6.2	The system shall be capable of allocating telephone line resources based on the priority level of each notification. <ul style="list-style-type: none"> • Low priority notifications must yield telephone line resources to high priority Scenarios • Notifications with comparable priorities must share telephone line resources 	M, I			
6.3	The system shall support delivery of notification messages to voice mail and answering machines. Users must be able to define the action to be taken when a voice mail or answering machine is reached, including the following: <ul style="list-style-type: none"> • Delivery of a primary or alternate notification message • Delivery of a call-back number • How to report delivery to voice mail 	M, I			
6.4	Users must be able to define the sequence of events and message logic of a telephone notification, including the following optional elements: <ul style="list-style-type: none"> • Introduction message or common preamble • Request for personal identification or authorization code • Incident-specific message • Message segments derived from Recipient, Group and Scenario information (e.g. identifying the closest reception centre based on geographic location of recipient) • Questions to prompt for Recipient input via keypad (e.g. estimated time of arrival? do you understand? need more time to respond? fit for duty? transfer to live operator? repeat message and other User-defined questions) The message logic should be easily modifiable by a User using a graphical user interface.	M, I			
6.5	The system shall provide the ability to configure certain messages or Scenarios to require the Recipient to enter an authorization code prior to delivery.	M, I			
6.6	The system shall enable the user to identify the target duration for completion of the notification and if the available capacity of the in-house IVR system does not permit the notification to complete in this time, the system shall provide the user with the option of using hosted IVR resources to complete the notification.	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
6.7	The system shall enable Users to define the action to be taken by the system and the statistics to be collected in response to Recipient input (during successful notifications) or in response to voice mail or no-answer.	M, I			
6.8	The system shall have the ability to transfer a Recipient to an audio conference bridge.	M			
6.9	The system shall have the ability to transfer a Recipient to an attendant or operator. The system shall support the ability for the attendant to access details of the in-progress notification.	M, I			
<u>Multilingual Notification</u>					
7.1	The system shall provide the capability for the User to configure messages to be delivered in multiple languages by: <ul style="list-style-type: none"> • Playing the different language versions in succession • Playing a default language and waiting for recipient input to request an alternate language 	M			
7.2	The system shall provide the capability for the Recipient to select messages to be delivered in one or more different languages than the default.	M			
7.3	The system shall have the ability to transfer a Recipient to a language translation service. The Proponent should provide information on translation services it has successfully interfaced with and what the Recipient's experience would be. The Proponent should indicate how language translation operators are provided details of the in-progress notification.	M, I			
<u>Email, FAX and SMS Notification</u>					
8.1	The system shall provide the ability to send pre-defined or on-the-fly email, FAX or SMS messages associated with all Scenarios and notifications.	M			
8.2	The system shall provide the ability to send email notifications to any valid Internet email address and request receipt confirmation.	M			
8.3	The system shall provide the ability to send email and SMS notifications to any wireless device (cell phone, PDA, Blackberry, etc.) and request receipt confirmation.	M			
8.4	The system shall enable message size, format and presentation to be automatically modified or constrained based on Recipient device type, including conversion to FAX format or character limiting for pagers and SMS.	M, I			
8.5	The system shall enable electronic attachments (drawings, maps, lists, etc.) to be incorporated into email and FAX notifications.	M			
8.6	The system shall store an unlimited number of predefined email, FAX or SMS messages and attachments.	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
8.7	The system shall provide the ability for messages to incorporate automatic text derived from Recipient, Group and Scenario information. The message logic should be easily modifiable by a User using a graphical user interface.	M, I			
8.8	The system shall provide the ability to send voice-recorded or TTS messages as an attachment to an email notification (either .wav or .mp3 format).	D, I			
<u>Paging</u>					
9.1	The system must support notification delivery to voice, numeric and alphanumeric pagers.	M			
9.2	The system must be able to send pages to all types of pagers, regardless of whether the paging service provider uses a common inbound phone number plus PIN or each pager has its own phone number.	M, I			
<u>Activation of Notification</u>					
10.1	The system shall enable Users to activate a notification from any location using a Web browser via the internet or City's intranet or using a touch-tone telephone or cell-phone.	M			
10.2	The system shall be easy to use with the ability to activate a predefined notification Scenario using a maximum of three mouse clicks or key presses after login (with no changes to the Scenario information).	M, I			
10.3	The system should provide the option for generating and activating notifications over the telephone using voice recognition technology.	D, I			
10.4	At the time of activation, the system shall provide the User the option of activating a predefined Scenario or generating a new notification Scenario on-the-fly.	M			
10.5	The system shall provide the User the option of saving a notification Scenario that has been generated on-the-fly.	M			
10.6	At the time of activation, the system shall provide the User the option of using a previously recorded message or recording a new message on-the-fly (via the telephone, voice or text-to-speech).	M, I			
10.7	Authorized Users shall be able to modify notification message sequence and logic at time of activation.	M			
10.8	The system must include ability to include or exclude specific Recipients in or out of the notification at the point of activation.	M, I			
10.9	Users shall be able to stop an in-progress notification and subsequently re-activate it, only contacting those individuals not previously called.	M, I			
10.10	Users shall be able to stop a notification via the methods used to activate it.	M			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
10.11	The system shall provide the ability for automatic notifications to be scheduled by a User and automatically activated by the system without any User invention.	M, I			
10.12	Users must be able to activate a notification using hosted system resources without any service provider or operator intervention.	M, I			
<u>Message Delivery and Receipt Confirmation</u>					
11.1	The system shall keep track of whether Recipients have received notification messages and collect statistics on the results of all notifications, including delivery to voice mail or answering machines.	M, I			
11.2	The system shall provide the ability to receive notification delivery confirmation regardless of the method of delivery (telephone, email, etc.).	M			
11.3	The system must be able to designate certain telephone lines for incoming calls during an outbound notification so that Recipients receiving email, FAX, SMS or pager notifications may call into the system, enter an authorization code, listen to the message, enter requested information and confirm receipt.	M			
<u>Position Filling</u>					
12.1	The system shall provide the ability to generate notifications for the purpose of filling a specified number of personnel call-out positions based on criteria derived from the Contact Database (e.g. skills).	M, I			
12.2	The system shall enable the Recipient of a position filling notification to respond with their intention to respond (e.g. for an emergency staff call-out application the availability of the staff member), status and expected time of arrival.	M, I			
12.3	The system shall be capable of identifying and prioritizing individuals for notification based on shift, OT hours or seniority of the individuals at time of activation or other criteria to be entered into the Contact Database.	D, I			
12.4	Position filling notifications must automatically stop when the required number of positions are filled.	M			
<u>Bulletin Board (Dial-In)</u>					
13.1	The system shall be capable of performing outbound notifications while simultaneously delivering information through an inbound telephone-based bulletin board.	D, I			
13.2	The system shall allow members of the public and City staff to obtain audio information updates on a variety of topics, including active emergency warnings or notifications.	D, I			
13.3	The inbound bulletin board shall support at least nine menu options and three layers of available message segments.	D, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
13.4	The inbound bulletin board shall provide the option for certain menu items or message segments to be password protected or require the entry of a user authorization code.	D, I			
13.5	The inbound bulletin board shall allow the caller to select message playback in alternate languages.	D, I			
13.6	The system shall store a large number of bulletin-board message segments that can be managed remotely through a touch tone phone (via User access security codes) or via the web-based system interface.	D, I			
13.7	The inbound bulletin board shall provide the capability to transfer a caller to an alternate phone number, such as an operator, live conference bridge or command center. The Proponent should indicate how operators are provided details of the in-progress notification.	D, I			
<u>Contact Database, Message, Group and Scenario Administration</u>					
14.1	The system shall support an unlimited number of User accounts. For pricing purposes, the Proponent should assume the system will be configured with at least 8 User accounts.	M			
14.2	The system shall support an unlimited number of Administrator accounts. For pricing purposes, the Proponent should assume the system will be configured with at least 2 Administrator accounts.	M			
14.3	The system shall enable authorized Users to access the system perform the following functions: <ul style="list-style-type: none"> • Enter and edit Contact Database information • Assign authorization codes to individuals (Recipients) requiring them • Record and edit audio messages or message segments • Enter and edit text messages and upload attachments • Define and edit notification Groups • Define and edit notification Scenarios • Configure map display preferences and properties 	M, I			
14.4	The system shall provide hierarchical access and privilege levels for Users, allowing multiple departments or groups to utilize the system for their own purposes while having access to designated common notification Groups or Scenarios and a subset of Contact Database entries.	M, I			
14.5	All Contact Database entries, Groups, Scenarios and messages shall be associated with one or more Users who are designated as the owners of that information and have full administrative privileges for viewing, modifying or activating it.	M, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
14.6	The system shall allow administrative authority (to create, view or modify entries) over subsets of the Contact Database to be associated with specific Users, to the exclusion of some or all other Users and/or the system Administrator. Proponents should describe the security mechanisms implemented to protect private data from unauthorized access.	M, I			
14.7	The system shall allow administrative authority (to create, view or modify entries) over subsets of Group and Scenario information and stored messages to be associated with specific Users, to the exclusion of some or all other Users and/or the system Administrator. Proponents should describe the security mechanisms implemented to protect private data from unauthorized access.	M, I			
14.8	Users must be able to delegate or assign some or all privileges associated with their own Contact Database entries, Groups, Scenarios and messages to other Users.	M, I			
14.9	Users must be able to select their own personalized identification codes for system access and activation rather than having them automatically assigned by the system.	M			
14.10	The system shall allow Users to have the same or different User passwords for on-line (Web) access and telephone dial-in access.	D, I			
14.11	Administrator accounts shall have the ability to perform system maintenance and management functions (such as database backups, creating User Accounts, etc.) but shall not have the ability to activate notifications.	M, I			
<u>Reporting</u>					
15.1	The system shall provide a real-time summary of the status of a notification while it is in progress, including summarizing the number of successful and unsuccessful notifications and estimated time to completion.	M, I			
15.2	The system shall enable Users to view, print, export and email reports on notification activity as appropriate to their authorized privilege levels.	M			
15.3	The system shall allow authorized Users to configure report parameters, including frequency of report generation and distribution.	M			
15.4	The system shall enable a set of reports to be automatically distributed to specified contacts via email.	M			
15.5	The system shall enable a set of reports to be automatically available via web browser for authorized Users.	M			
15.6	The system shall enable authorized Users to request and receive audible reports via telephone dial-in.	M, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
15.7	The system shall provide a set of commonly-used predefined reports.	M, I			
15.8	The system shall provide the ability to predefine the reporting requirements for each Scenario/notification.	M			
15.9	Reports of completed notifications shall be persistently stored within the system.	M			
15.10	The system shall provide report formats that are searchable and easy to read.	M			
15.11	For position-filling notifications, the system shall generate reports identifying the number of positions filled and status for each recipient, including the method of message delivery.	M, I			
15.12	For notifications involving hosted IVR system resources, notification reports shall be automatically received at the end of each notification without requiring a request to the hosted system provider.	M			
<u>User Interface</u>					
16.1	The User interface should be web-based, intuitive and easy-to-use to allow personnel with minimal training to create notification Scenarios, Groups, messages and activate notifications. Proponents will be expected to demonstrate their user interface during the RFP evaluation phase and ease of use of the system will be a primary evaluation criteria.	M, I			
16.2	The system must provide extensive on-line help tools, including “mouse-over” of screen symbols and pull-down menus or balloons for prompting and assistance with data entry and system commands.	M, I			

APPENDIX II – TECHNICAL REQUIREMENTS MATRIX

The Proponent shall complete the following table based on the required scope of work provided in section 5 and the work plan and price proposal it has provided:

The following definitions shall apply in this Appendix (and elsewhere in this RFP document):

- Hosted IVR – an IVR system that is physically installed on a service provider’s premises and is available for use by the City on request based on a service subscription.
- In-bound – telephone calls that originate with a message recipient and terminate at the City’s ENS system
- IVR – Interactive Voice Response – a component of the ENS system which originates and terminates telephone calls and supports certain voice processing functions such as voice recognition, digit reception, message playback, etc.
- On-site – an ENS and/or IVR system that is physically located on the City’s premises and owned by the City.
- Outbound – telephone calls or text messages originating within the ENS system
- PSTN – public switched telephone network

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
<u>System Configuration and Capacity</u>					
17.1	The system shall be configured with a limited amount of on-site telephone calling (IVR) capacity and integrated access to additional notification capacity through a subscription to a hosted IVR service.	M			
17.2	The system shall be configured with one (1) on-site primary rate ISDN (PRI) connection to the local public switched telephone network in Richmond BC.	M			
17.3	The system shall support a calling capacity of 2000 outbound 30 second calls per hour without the use of the hosted IVR service.	M, I			
17.4	The City shall be entitled to unlimited usage of the on-site IVR system without incurring usage charges.	M, I			
<u>Hosted IVR Service and Capacity</u>					
18.1	The system shall notify the user and provide the option to automatically initiate notifications using the hosted IVR service when the target duration and number of recipients for a particular notification exceeds the capacity of the on-site IVR system, as defined in 6.6.	M, I			
18.2	The system shall support activation of hosted IVR notifications from the on-site system using a secure and authenticated link over the internet.	M, I			
18.3	The system shall support activation of hosted IVR notifications from the on-site system using a telephone dialup connection.	D, I			

Reqt. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
18.4	The system shall be capable of initiating hosted IVR notifications in situations where the on-site IVR system or its telephone circuits have failed (no on-site IVR capacity is available).	M, I			
18.5	The system shall support sharing of on-site IVR resources with applications other than emergency notification. The Proponent shall provide details of the API used between its ENS application and third party IVR resources, including the mechanisms used for arbitrating and prioritizing resource usage.	D, I			
18.6	The system shall support a minimum calling capacity of 6000 outbound 30 second calls per hour using the hosted IVR service (this quantity should be used by Proponents to propose pricing in Appendix III).	M, I			
18.7	The expected annual usage of the hosted IVR service by the City of Richmond is 10,000 minutes per year (this quantity should be used by Proponents to propose pricing in Appendix III).	M, I			
18.8	The Proponent shall provide additional pricing for 25,000, 50,000 and 100,000 minutes of aggregate usage per year.	I			
18.9	The City shall be entitled to apply unused calling minutes towards its usage in the following year without penalty.	M, I			
18.10	The hosted IVR service provider shall offer a Service Level Agreement (SLA), which defines the capacity and reliability of the hosted IVR service provided. Proponents should identify their SLA offerings.	M, I			
18.11	Use of the hosted IVR service shall not require the storage of Contact Database, Group, Scenario or GIS information at a location in the United States.	D, I			
18.12	The hosted IVR service shall incorporate prioritization mechanisms that are integrated with the Scenarios defined in on-site ENS system.	M, I			
18.13	The Proponent shall provide information on the location, quantity of available ports and calling capacity at its various hosting centres.	I			
18.14	The hosted IVR service shall utilize diverse networks (multiple carriers) for inbound calling to the PSTN in Richmond BC in order to maximize the probability of successful call completion. The Proponent shall identify the interexchange carriers it utilizes for its hosted IVR.	M, I			
<u>On-Site System Platform</u>					
19.1	The City of Richmond reserves the right to supply and install the on-site system hardware and software platform.	M, I			
19.2	The Contractor shall provide a hardware and software platform specification for the City's approval.	M, I			
19.3	The on-site system platform shall be based on the Windows Server	D, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
	System.				
19.4	The system shall be configured with fully redundant on-site computing and storage hardware platforms. The system shall enable the redundant hardware to be installed in a different location from the primary hardware. The system shall support automatic switchover between primary and backup platforms with less than thirty (30) seconds disruption in service.	D, I			
19.5	The system shall optionally be configured with redundant IVR hardware (the City may optionally install a second ISDN PRI link to the PSTN or connect the second link through one of its PBXs).	D, I			
<u>Database</u>					
20.1	The system databases shall run on an open RDMS platform, either Microsoft SQL Server or Oracle.	M, I			
20.2	The system databases (including Contact, Group, Scenario, message, reports and GIS information) shall support automatic backup on primary and redundant hardware.	M, I			
20.3	The system databases shall be designed to support an unlimited number of entries, however for the purpose of pricing, Proponents shall assume the following database sizing: <ul style="list-style-type: none"> • Contact Database – 130,000 entries (including individuals, residences and businesses) • Groups – 1000 • Scenarios – 2000 	M, I			
<u>User Interface</u>					
21.1	All capabilities and functions of the emergency notification system must be accessible using Internet Explorer, version 6.0 or greater.	M, I			
21.2	The GIS interface shall be available using a web browser from any remote location via the internet or the City's intranet.	M, I			
21.3	Any non-browser-based applications must be compatible with Microsoft terminal services.	M, I			
<u>GIS Interface</u>					
22.1	The system shall interface with software technology and GIS databases compliant with industry standards and formats from Environmental Systems Research, Inc (ESRI).	M			
22.2	The Contractor should provide services for geo-coding of telephone number databases.	D, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
<u>911 Interface</u>					
23.1	The system should support an electronic interface to the Telus 911 database in accordance with the CRTC tariff for this service when it is implemented. Proponents should describe their experience and capabilities in implementing this type of interface in other jurisdictions.	D, I			
<u>External Interfaces (except GIS)</u>					
24.1	The system shall be capable of electronically importing telephone number information as available from commercial white pages suppliers such as SuperPages.	M, I			
24.2	The system should be able to be activated via an API or other event triggers from third party systems, e.g. EMIS systems.	D, I			
24.3	The solution shall be able to be integrated or interfaced with applications or databases using a customizable XML-based API. Examples would include: <ul style="list-style-type: none"> • Staff directory • Personnel database (Peoplesoft) • Staff scheduling system 	D, I			
<u>System Reliability and Security</u>					
25.1	The system should incorporate features that ensure it continues to be operational in the event of a major disaster such as an earthquake.	M, I			
25.2	The system shall not incorporate single points of failure.	M, I			
25.3	Both on-site and hosted systems must be operational 24/7 with no requirement for daily or nightly maintenance downtime.	M, I			
25.4	The system shall support complex passwords for User and Administrator access. Proponents should describe how User and Administrator access is controlled.	M, I			
25.5	The system must incorporate at least 128-bit SSL data encryption for secure access over the Internet. The Proponent should describe the mechanisms implemented to ensure security of remote activations.	M, I			
25.6	The system shall be compatible with VPNs and Proxy Servers.	M, I			
25.7	Proponents should describe the security measures implemented to secure its hosting facilities and to ensure security of data transported between the on-site system and the hosting centre.	M, I			
<u>Warranty and Technical Support</u>					
26.1	The Contractor shall provide a user and technical assistance service that is operational at from 8 AM to 5 PM, Pacific time, 5 days per week.	M, I			

Req. No.	Requirement	Type	Compliant		Extra Cost
			Yes	No	
26.2	The Contractor shall provide an emergency technical assistance service that is available 24 hours per day, 7 days per week.	M, I			
26.3	The Proponent shall provide a description of its problem escalation policies and procedures.	M, I			
26.4	The Proponent shall provide details of its technical support organization and structure, including quantity and location of support personnel.	M, I			
26.5	The Proponent shall provide a description of its initial and extended warranty services for all system hardware and software.	I			
<u>Training</u>					
27.1	The Proponent should describe its recommended training program and structure for the City of Richmond's Users, Administrators and staff.	M, I			
27.2	The Contractor should provide several training alternatives, including web-based training, training at City facilities and training at its facilities. Proponents shall provide details of all training courses and methods of delivery it offers.	D, I			
<u>System Implementation and Acceptance</u>					
28.1	The Contractor shall be responsible for full turn-key implementation on the City's premises of all Contractor-supplied hardware and software comprising the ENS system.	M, I			
28.2	The Contractor shall designate a project manager within its organization who shall be responsible for management of all system implementation and testing activities. The Contractor shall not assign a new project manager without prior approval of the City.	M			
28.3	The Proponent shall provide a draft system Implementation Plan with its proposal.	I			
28.4	The Proponent shall provide a draft System Test and Acceptance Plan with its proposal.	I			
28.4	The Acceptance Plan shall incorporate a sixty (60) period with the system fully operational after Initial Acceptance and prior to Final Acceptance. The Contract payment milestones shall call for a hold-back of 25% of the Contract price until Final Acceptance is achieved.	M, I			
28.5	The Proponent shall identify in its proposal the specific requirements for facilities and services to be provided by the City, e.g. equipment racks, power, network access, firewall configuration, telephone/PRI services and cabling, etc.	I			

APPENDIX III – PRICING TABLE

Proponents should complete the pricing table below. Proponents may append lines as required and shall list additional items as applicable. Prices should include delivery of equipment and services to site in Richmond, BC. PST and GST should be excluded but PST rate should be specified.

Item	Manufacturer and Model Number	Price (Supply)	Price (Install)	Annual Price	Other Price	PST Rate	Note
On-Site System							
Server Hardware - Primary							
Server Hardware - Redundant							
IVR Platform – Primary (1 PRI)							
IVR Platform – Redundant							
Software - Basic							
Software – Optional							
Hardware Warranty – 1 Year							Per year after expiry of initial warranty
Hardware Warranty – 3 Years							To extend initial warranty to a total of 3 years
Software Warranty – 1 Year							Per year after expiry of initial warranty
Hosted IVR Service (annual)							
Basic Service Subscription							Annual
Usage – 10,000 minutes							Annual
Usage – 25,000 minutes							Annual
Usage – 50,000 minutes							Annual
Usage – 100,000 minutes							Annual

Item	Manufacturer and Model Number	Price (Supply)	Price (Install)	Annual Price	Other Price	PST Rate	Note
Support Services							
Training – On-site							
Training – Web-based							
Technical Assistance – 8 x 5							Should include 24 hour emergency assistance service
Technical Assistance – 24 x 7							
Implementation and Project Management							



Note: Receipt of this completed form will assist us in calling for future bids. Please complete and submit this form prior to the closing date and time as shown on the Request for Quotation/Proposal/Tender form.
Please remember to include Quotation/Proposal/Tender No. at right.

Quotation/Proposal/Tender
No **2830Q.**

A Quotation/Proposal/Tender is not being submitted for the following reason(s):

- | | |
|--|--|
| <input type="checkbox"/> We do not manufacture/supply the required goods/services | <input type="checkbox"/> Cannot obtain raw materials/goods in time to meet delivery requirements |
| <input type="checkbox"/> We do not manufacture/supply to stated specifications | <input type="checkbox"/> Cannot meet delivery requirements |
| <input type="checkbox"/> Specifications are not sufficiently defined | <input type="checkbox"/> Cannot quote/tender a firm price at this time |
| <input type="checkbox"/> Insufficient information to prepare quote/proposal/tender | <input type="checkbox"/> Insufficient time to prepare quote/tender. |
| <input type="checkbox"/> Quantity too small | <input type="checkbox"/> We are unable to competitively quote/tender at this time. |
| <input type="checkbox"/> Quantity too large | <input type="checkbox"/> We do not have facilities to handle this requirement |
| <input type="checkbox"/> Quantity beyond our production capacity | <input type="checkbox"/> Licensing restrictions (please explain) |
| <input type="checkbox"/> Cannot meet packaging requirements | <input type="checkbox"/> Agreements with distributors/dealers do not permit us to sell directly. |
| <input type="checkbox"/> Cannot handle due to present plant loading | <input type="checkbox"/> Other reasons or additional comments (please explain below) |

I / We wish to quote / tender on similar goods / services in future <input type="checkbox"/> Yes <input type="checkbox"/> No	Authorized Company Official – Signature and Title	Date
This space for City of Richmond Comments	Firm Name	
	Address	
	City	
	Province	Postal Code
	Telephone Number	

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