

**Glossary of Acronyms, Abbreviations, and other Terms (in alphabetical order):** Contra Costa County has a policy of making limited use of acronyms, abbreviations, and industry-specific language in its Board of Supervisors meetings and written materials. Following is a list of commonly used language that may appear in oral presentations and written materials associated with Board meetings:

AB	Assembly Bill	HCD	(State Dept of) Housing & Community Development
ABAG	Association of Bay Area Governments	HHS	Department of Health and Human Services
ACA	Assembly Constitutional Amendment	HIPAA	Health Insurance Portability and Accountability Act
ADA	Americans with Disabilities Act of 1990	HIV	Human Immunodeficiency Syndrome
AFSCME	American Federation of State County and Municipal	HOV	High Occupancy Vehicle
	Employees	HR	Human Resources
AICP	American Institute of Certified Planners	HUD	United States Department of Housing and Urban
AIDS	Acquired Immunodeficiency Syndrome	1100	Development
ALUC	Airport Land Use Commission	Inc.	Incorporated
AOD	Alcohol and Other Drugs	IOC	Internal Operations Committee
BAAQMD	Bay Area Air Quality Management District	ISO	Industrial Safety Ordinance
BART	Bay Area Rapid Transit District	JPA	Joint (exercise of) Powers Authority or Agreement
BCDC	Bay Conservation & Development Commission	Lamorinda	Lafayette-Moraga-Orinda Area
BGO	Better Government Ordinance	LAFCo	Local Agency Formation Commission
BOS	Board of Supervisors	LLC	Limited Liability Company
CALTRANS	California Department of Transportation	LLP	Limited Liability Partnership
CalWIN	California Works Information Network	Local 1	Public Employees Union Local 1
CalWORKS	California Work Opportunity and Responsibility	LVN	Licensed Vocational Nurse
Garrerate	to Kids	MAC	Municipal Advisory Council
CAER	Community Awareness Emergency Response	MBE	Minority Business Enterprise
CAO	County Administrative Officer or Office	M.D.	Medical Doctor
CCHP	Contra Costa Health Plan	M.F.T.	Marriage and Family Therapist
CCTA	Contra Costa Transportation Authority	MIS	Management Information System
CDBG	Community Development Block Grant	MOE	Maintenance of Effort
CEQA	California Environmental Quality Act	MOU	Memorandum of Understanding
CIO	Chief Information Officer	MTC	Metropolitan Transportation Commission
COLA	Cost of living adjustment	NACo	National Association of Counties
ConFire	Contra Costa Consolidated Fire District	OB-GYN	Obstetrics and Gynecology
CPA	Certified Public Accountant	O.D.	Doctor of Optometry
CPI	Consumer Price Index	OES-EOC	Office of Emergency Services-Emergency
CSA	County Service Area	020200	Operations Center
CSAC	California State Association of Counties	OSHA	Occupational Safety and Health Administration
CTC	California Transportation Commission	Psy.D.	Doctor of Psychology
dba	doing business as	RDA	Redevelopment Agency
EBMUD	East Bay Municipal Utility District	RFI	Request For Information
EIR	Environmental Impact Report	RFP	Request For Proposal
EIS	Environmental Impact Statement	RFQ	Request For Qualifications
EMCC	Emergency Medical Care Committee	RN	Registered Nurse
EMS	Emergency Medical Services	SB	Senate Bill
EPSDT	State Early Periodic Screening, Diagnosis and	SBE	Small Business Enterprise
	Treatment Program (Mental Health)	SWAT	Southwest Area Transportation Committee
et al.	et al (and others)	TRANSPAC	Transportation Partnership & Cooperation (Central)
FAA	Federal Aviation Administration		Transportation Planning Committee (East County)
FEMA	Federal Emergency Management Agency	TRE or TTE	Trustee
F&HS	Family and Human Services Committee	TWIC	Transportation, Water and Infrastructure Committee
First 5	First Five Children and Families Commission	VA	Department of Veterans Affairs
	(Proposition 10)	VS.	versus (against)
FTE	Full Time Equivalent	WAN	Wide Area Network
FY	Fiscal Year	WBE	Women Business Enterprise
GHAD	Geologic Hazard Abatement District	WCCTAC	West Contra Costa Transportation Advisory
GIS	Geographic Information System		Committee
-	<u> </u>		

The purpose of this Request for Information (RFI) is to maintain and enhance the integrated Contra Costa County Community Warning System's (CWS) capacity to alert and inform the public during emergencies. The responses will help in determining how to improve this component of the service. Many alert and warning components are included in the CWS, and this RFI relates only to the Telephone Emergency Notification Service (TENS) which is one of the components of the CWS's , an all-hazard, multimode public alerting and information capability. Tools used by the CWS are all based on CAP 1.2 and currently include:

- · Siren System
- Radio, TV and Cable stations (Emergency Alert System)
- Text Messages
- Email
- Telephone Emergency Notification Service
- County Cable Television (CCTV)
- Weather and Emergency Alert Radios
- Traveler Information Stations
- Computer pop-up Alerts
- · Internet current alert map display portal
- California State Emergency Digital Information Service
- Twitter
- Facebook
- · RSS and Atom feeds

The primary function of the TENS during an emergency will be to deliver a supplied message to each of a supplied list of telephone numbers as well as email addresses and cell phones, in order and as rapidly as possible from one or more secure mass-calling facilities located outside of the San Francisco Bay Area. Each message will be submitted to the TENS either in digital text or audio file as appropriate for the specific activation. An additional function of the TENS is to provide reports and near-real-time tracking data on the progress and degree of success of the telephone delivery.

To control the TENS the Office of the Sheriff maintains a database of listed and unlisted wireline and wireless telephone numbers for residents, homes and some offices countywide, indexed by desired order of delivery. The Community Warning System control software will access this database to generate lists of telephone numbers within a specified geographic, sorted by their relative nearness to the source of a hazard. That list along with the required audio message will be transferred to the TENS for delivery to the public, in conjunction with other CWS alerting subsystems as circumstances warrant.

The objective of this RFI is to seek information from all qualified firms who have the ability to provide an encrypted internet web-service interface along with a high speed telephone calling system that can support CWS requirements in the event of an emergency. The TENS itself will be a service provided on a secure, continual and highly reliable basis by a qualified vendor. The TENS vendor is welcome to present a few call-out activation processes that used their proposed infrastructure in mass activation similar to a refinery incident where a mass public call-out was requested for a limited geographical area.

S/N	Торіс	Response
	Functionality	•
1	The TENS shall at all times be capable of sustaining on behalf of	
1	the CWS at any time (i.e., exclusive of any other customers' usage)	
	at least 1,000 simultaneous telephone calls and a continuous	
	calling rate of at least 30,000 single language calls in half an hour	
	(to be calculated based on assumption of a sixty second audio	
	recording contents, a 100% call completion rate and no requests	
	for repeats of the message) for up to three hours.	
2	The TENS shall be capable of accepting and distributing API-	
-	provided messages of up to three minutes audio duration in text or	
	audio files, as well as SMS messages and emails with attachments.	
3	For each telephone number provided for a particular activation, the	
5	TENS shall:	
	a) Place a call to that number;	
	b) Present a API-specified caller-ID number and	
	identification string or else default values;	
	c) Upon answer, wait for audio from the receiving end and	
	then for the first 1.5-second pause after such audio,	
	d) Play the provided message text using text-to-speech	
	synthesis or the audio file, as provided in the API, If a	
	multi-lingual message is requested by the API, it will	
	allow the called person to press a button for this selection	
	and proceed accordingly.	
	e) Invite the recipient to touch a key to hear a single replay of	
	the message, replay the message once if requested within 7	
	<ul><li>seconds, then hang up;</li><li>f) If no audio is heard from the receiving end of the call</li></ul>	
	within 10 seconds, or if fax or other data tones are presented, terminate the call immediately;	
	g) If no answer or an error (operator interrupt or other), defer the cell for a single rate, after all other first cells are	
	the call for a single retry after all other first calls are	
	completed. If the retry fails, make no further attempts; and,	
	h) Record and report the disposition of the call including any	
	error conditions and, if the call was answered normally,	
	whether a repeat of the message was requested.	
	i) All above functions can be changed using the API for any	
	individual activation.	
	j) Email can be defined as rich text HTML or text for	
	individual activation.	
	k) SMS shall be using short code messaging and multiple	
	connections to the cell operators for fast SMS delivery.	
	l) Activations might be sent via number of API calls with	
	same or different message.	
4	The TENS shall provide an encrypted Internet web-service	
	application interface (API) with sender authentication by which	

S/N	Торіс	Response
	the CWS can activate the system from any location with network	
	access by providing an XML document containing an ordered list	
	of U.S. telephone numbers, specific instructions for that individual	
	activation and a message text. At least two such gateways will be	
	provided in different geographical areas and the CWS may	
_	connect to any of them independently.	
5	The TENS shall provide an encrypted Internet web-service	
	interface with authentication by which the CWS can cancel a	
	particular ongoing calling process, such cancellation to take	
	effect within ten seconds of receipt by halting the generation of	
	new calls. Calls already underway at the time of cancellation	
	shall be completed normally. All calls placed and cancellation	
6	event itself will be recorded and reported as described below.	
6	The TENS shall provide an encrypted Internet web-service interface with authentication by which the CWS can query the	
	progress and report details of any particular calling process,	
	ongoing or completed. The data available shall be current up to	
	ten seconds prior to receipt of the query. A query can be done	
	anytime with less than 60 seconds interval.	
7	The TENS shall be capable of executing multiple concurrent	
7	calling processes, with the ability to cancel and to query each	
	process individually. Where multiple calling processes are	
	concurrent, the total calling capacity of the system shall be	
	divided evenly among them. Vendor to state if there is	
	limitation to the number of concurrent processes.	
8	The TENS shall enable multi lingual messaging by allowing the	
	recipient to select its preferred language when the call starts.	
	Availability and Quality of Service	
9	Individual technical components used by the vendor to provide	
-	the TENS, including hardware, software and network	
	components shall be engineered to maintain individual	
	availability of at least 99.99% on a 24-hour, 7-day, year-round	
	basis. Any scheduled maintenance should not affect the	
	availability of the system. The vendor's facilities shall provide	
	sufficient redundancy to ensure that the TENS is available at all	
	times.	
10	The TENS control web services shall accept and acknowledge	
	all command messages from the CWS within five (5) seconds of	
	receipt, and such commands shall begin to be processed within two	
	(2) seconds of acknowledgement. Reports and other data in	
	response to queries shall be returned within fifteen (15) seconds	
	of receipt of the query.	
11	The vendor software for TENS shall include mechanisms for	
	minimizing the effects of telephone network or switch	
	overloading effects (such as may be indicated by "operator	

S/N	Торіс	Response
	intercept" or "fast busy" signals.) Data describing the time and	
	cause of activation and such mechanisms and documenting their	
	effect on calling rates shall be included in the data reportable	
	via the web services interface. Activation of such measures	
	shall not imply any waiver of the required overall calling or	
	call-completion rates or of any service level agreement	
	undertaken by the vendor.	
12	Technical problems affecting the performance of any of the	
	TENS gateways shall be repaired within two hours of initial	
	detection or report during business hours at the vendor's home	
	office, and within four hours after business hours and on	
	weekends.	
	Reporting	
13	Upon submission of a notification (defined as the process of	
	delivering a single contents message to a single list of recipient	
	numbers) over the TENS web-service interface, the TENS shall	
	automatically be assigned a sequential identification number of	
	not more than six numeric characters length, which shall be	
	reported back to the CWS as part of the web service	
	acknowledgement message. This number shall serve as the	
	primary key for subsequent queries. The identification number	
	shall be stored by the vendor in association with plain-text	
	notification name provided by the CWS in the initiating	
	command message.	
14	At any time during or after the performance of a notification the	
	TENS shall respond as directed by a web-service query with	
	one or more of the following:	
	a) Status Report: A summary of a notification specified in	
	the query by number, including number and name of the	
	notification, the date and time started, the number of	
	telephone numbers included, emails or SMS addresses,	
	the date and time completed (or the current date and	
	time and an indication that the notification is still	
	ongoing), and the results of the notification in terms of	
	the quantity and percentage of numbers reached,	
	numbers not answering, numbers with fax or data tones	
	and numbers not reached due to repeated-busy, not-in-	
	service, operator intercept or other errors.	
	b) Active Status: A collection of Status Reports as	
	described above, one for every notification job currently	
	in process.	
	c) History Status: A collection of Status Reports as	
	described above, one for every notification job initiated	
	between starting and ending dates and times specified in	
	the query.	

S/N	Торіс	Response
	d) Call Detail: A summary of a specified notification as	
	described in Status Report above, followed by a	
	sequential listing of the date and time, number called,	
	and result (completed/busy/no-answer/fax/not-in-	
	service/error-intercept, etc) of each call attempt.	
	e) Number Detail: A summary of a specified notification	
	as described in Status Report above, followed by a list	
	sorted by number of all telephone numbers submitted	
	for that notification with the final disposition of calling	
	for each and the time of that disposition. All call	
	attempts to a particular number will be detailed.	
	f) Error Detail: A summary of a specified notification as	
	described in Status Report above, followed by a list,	
	grouped by error type, of all numbers which generated	
	not-in-service, fax / data, or other errors.	
	g) Similarly, reports for SMS and email will be included.	
	h) Once activation started and once it is finished the TENS	
	will provide sms notification about the starting /	
	completed process to a list as provided in the API call. It	
	will also send the information via email with a PDF	
	(attached or downloadable) of the requirements or the	
	results.	
	Technical Support	
15	The provider of the TENS shall provide the CWS with a	
15	telephone support line for technical support, troubleshooting	
	1 11 11 0	
	and problem reporting that is answered by a TENS technically qualified human attendant at all times, 24 hours a day, year-	
	round.	
16		
10	During business hours at the vendors' primary location in the	
	United States, both primary and second-level technical support	
	personnel shall be available immediately via the telephone	
17	support number.	
17	After normal business hours the personnel staffing the	
	telephone support line shall be qualified to record trouble	
	reports and able to have a qualified technical support person	
	with administrative access to the vendor's infrastructure call	
10	back to the requester within twenty (20) minutes.	
18	The provider of the TENS shall maintain a trouble ticket	
	tracking system that enables the CWS to monitor the recording,	
	processing and resolution of any technical problems reported by	
	itself or otherwise discovered by the vendor.	
19	The provider of the TENS shall maintain a secure, password-	
	protected online status web page which shall report promptly	
	and continually any ongoing or expected operational conditions	
	which might affect the usability of the TENS.	

S/N	Торіс	Response
	Documentation and Testing	
20	The TENS provider shall provide the CWS with specifications	
	of its web-service interfaces, including network addresses, login	
	information, XML document schemas, data dictionaries and any	
	other technical information required by the CWS to implement	
	those interfaces, at least sixty (60) days prior to the initiation	
	date of the TENS contract. The provider will make available a	
	testing platform and technical support to allow the CWS to test	
	the interface.	
21	The TENS provider shall provide the CWS with a schematic	
	diagram of its infrastructure supporting TENS upon issuance of	
	the contract, and shall update it whenever that infrastructure	
	changes.	
22	The TENS provider shall maintain a testing web-service	
	interface account for the CWS's exclusive use in network	
	interface development and testing. This account shall behave	
	identically with the operational "production" interface in all	
	regards except that mass call delivery shall be simulated with	
	only one telephone number actually called per test activation.	
	Maintenance and Change Management	
23	The TENS provider shall maintain all components of its	
	infrastructure in such a manner as to avoid reducing availability	
	to the CWS below the levels specified herein and in any	
24	applicable service levels agreements and contracts.	
24	The TENS provider shall maintain continual active monitoring	
	of TENS service availability and performance and shall perform	
	corrective actions for any detected malfunctions as provided above.	
25		
25	The TENS provider shall make immediate notification to the CWS's designated Technical Contact of any detected systems	
	malfunction, and 24-hours prior notice of any planned	
	maintenance that might affect system availability or	
	performance.	
26	The CWS shall be notified of any changes to the TENS	
20	interface, infrastructure or behavior at least sixty (60) days prior	
	to their being implemented. Any proposed change to the TENS	
	interface or behavior shall be submitted for approval by the	
	CWS prior to being undertaken. Changes to the interface or	
	behavior of the TENS shall not be made without CWS	
	approval. Changes to the interface or behavior of the TENS	
	shall not be made effective without successful testing.	