SOLICITATION INFORMATION
23 NOV 11

RFP# **7449257**

TITLE: **Electronic Patient Care Reporting (ePCR) System**

Submission Deadline: **21 Dec 11 @ 11:30 AM** (Eastern Time)

Questions concerning this solicitation must be received by the Division of Purchases at questions@purchasing.ri.gov no later than 7 Dec 11 @ 12:00 Noon (EST)**.** Questions should be submitted in a Microsoft Word attachment. Please reference the RFP# on all correspondence. Questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

SURETY REQUIRED: No

BOND REQUIRED: No

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Assistant Director for Special Projects

Applicants must register on-line at the State Purchasing Website at www.purchasing.ri.gov

Note to Applicants:

Offers received without the entire completed three-page RIVP Generated Bidder Certification Form attached may result in disqualification.

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

INTRODUCTION

The Rhode Island Department of Administration, Office of Purchases, on behalf of the State of Rhode Island, Department of Health, Division of Emergency Medical Services is requesting proposals from qualified vendors to provide an Electronic Patient Care Reporting (ePCR) system in accordance with the terms of this solicitation, and the State's General Conditions of Purchase (available at www.purchasing.ri.gov).

The Department of Health (HEALTH), Division of Emergency Medical Services (HEALTH-EMS) is seeking the services of a software development company which specializes in Emergency Data Systems (EDS) solutions to provide Emergency Medical Services Patient Care Reporting Data Software and infrastructure solutions for the implementation of an ePCR system for collecting, analyzing and transferring near real time patient care information including the ability to perform ongoing evaluation of system readiness and capacity based on patient care data collected and documented by Emergency Medical Services providers.

This is an effort to ensure the availability of timely, reliable and Nationally Standardized EMS Information System compliant Patient Care Report (PCR) data that is critical to Rhode Island's emergency medical services (EMS) system and the Department of Health's ability to oversee it as required by RIGL § 23-4.1-3. The reliable provision of pre-hospital emergency care and the information collected during the provision of care is critical to managing day-to-day EMS operations as well as all types of major incidents and public health emergencies. Ensuring EMS system readiness requires ongoing evaluation of key metrics describing system efficacy and capacity, based on both real-time and aggregated PCR data.

While many national efforts have focused on the capacity to identify and track patients, less attention has been paid to ensuring that each patient's particular care information is promptly and reliably transferred from the pre-hospital care provider network to receiving facilities, and to those responsible for managing aggregated statewide data.

The National EMS Information System (NEMSIS) current Version 2.2.1 Gold Compliant Software standard (http://www.nemsis.org/) shall serve as the initial benchmark for the EMS-PCR data system sought through this RFP. The software shall have a plan to move to the NEMSIS Version 3 Dataset and specifications within six (6) months following the official release. In addition, the software shall have a plan for the move to the Health Level 7 (HL7) when it is released by NEMSIS in the next few years.

The initial project period is expected to begin on March 1, 2012. The initial contract period will be awarded for a period of 12 months with the option of renewal for (4) four additional 12-month periods at the exclusive option of the State of RI based on vendor performance and the availability of funds. This will be a 100% federally funded contract and charged to acct 2206116.02

INSTRUCTIONS AND NOTIFICATIONS TO OFFERORS:

- Potential offerors are advised to review all sections of this Request carefully, and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.

- Alternative approaches and/or methodologies to accomplish the desired or intended results of this procurement are solicited. However, proposals which depart from or materially alter the terms, requirements, or scope of work defined by this Request will be rejected as being non-responsive.

- All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content shall be borne by the offeror. The State assumes no responsibility for these costs.

- Proposals are considered to be irrevocable for a period of not less than sixty (60) days following the opening date, and may not be withdrawn, except with the express written permission of the State Purchasing Agent.

- All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

- Proposals misdirected to other State locations or those not present in the Division of Purchases at the time of opening for any cause will be determined to be late and will not be considered. The official time clock is located in the reception area of the Division of Purchases, Department of Administration, One Capitol Hill, Providence, RI.

- In accordance with Title 7, Chapter 1.1 of the General Laws of Rhode Island, no foreign corporation without a Rhode Island business address, shall have the right to transact business in the State until it shall have procured a Certificate of Authority to do so from the Rhode Island Secretary of State (401-222-3040). This is a requirement only of the selected applicant(s).

- Proposals should include the offeror's FEIN or Social Security number as evidenced by a W9, downloadable from the Division of Purchases website at www.purchasing.ri.gov.

- Bidders are advised that all materials submitted to the State for consideration in response to this Request for Proposals will be considered to be public records, as defined in RIGL Title 38, Chapter 2, and will be released for inspection immediately upon request, once an award is made.

- It is intended that an award pursuant to this Request will be made to a prime Contractor who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the offeror's proposal and the proposed subcontractor(s) are identified in the proposal.

- The State of Rhode Island has a goal of ten percent (10%) participation by Minority Business Enterprises in all State procurements. For further information, visit the web site at www.mbe.ri.gov. To speak with an MBE officer, please call (401) 574-8253.

- The purchase of services under an award made pursuant to this Request will be contingent on the availability of funds.

- Equal Employment Opportunity (RIGH 28-5.1) Declaration of Policy – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island State government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of State employment. This policy applies in all areas where the State dollar is spent: in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office at 401-222-3090.

NOTICE

THERE MAY BE ADDITIONAL ADDENDA TO THIS LOI AT ANY TIME BEFORE THE OPENING DATE AND TIME. THE DIVISION OF PURCHASES WILL **NOT** BE NOTIFYING BY MAIL OF ANY SUCH ADDENDA.

IT IS THE **VENDOR'S RESPONSIBILITY** TO **CHECK** AND **DOWNLOAD** ANY AND ALL ADDENDA.

AN ADDENDUM TO AN RFP IS LISTED AS THE BID NUMBER WITH AN **"A"** AND THE NUMBER OF THE ADDENDUM FOLLOWING: FOR EXAMPLE, **3025A1** INDICATED ADDENDUM #1 HAS BEEN ISSUED FOR BID 3025. **3025A2** INDICATES ADDENDUM #2 HAS BEEN ISSUED.

YOU MUST CLICK ON **ALL** OF THESE LISTINGS TO GET THE **COMPLETE** PACKAGE.

RI DEPARTMENT OF HEALTH
EMS ELECTRONIC PATIENT CARE REPORTING (ePCR) RFP

1. Overview

1.1 Introduction

The Rhode Island Department of Health – Division of Emergency Medical Services (HEALTH-EMS) requests proposals for the implementation of a statewide Electronic Patient Care Reporting (ePCR) system for Emergency Medical Services. The desired solution will be a web-based system that provides extensive reporting and querying capability. The solution will have been tested by the National EMS Information System (NEMSIS) Technical Assistance Center and received a Gold-compliant rating. Achieving a NEMSIS Gold Compliance rating occurs when an electronic EMS data system meets conditions relating to the use of the National Highway Traffic Safety Administration's (NHTSA) Version 2.2.1 EMS and Demographic Data Sets as well as the capability for exporting and importing data using the NHTSA Version 2.2.1 XML standard. In addition, the solution must have the capability of exporting a National Elements only XML file for both the Demographic and EMS (Event) Data Sets for any NHTSA/ NEMSIS Standard be it Version 2.2.1 or Version 3.x. The ePCR solution vendor shall maintain plans to comply with future NEMSIS standards such as NEMSIS Version 3 slated for release in 2012. The web based software solution shall meet NEMSIS Version 3 Standards within 6 months of standards release and continue to meet future NEMSIS data set standards going forward.

Any Web application that is accessible to the general public should follow all Rhode Island State Web Policies. Any Web site, internal or external, should also follow the state Accessibility Policy.

The qualified supplier of this solution will provide Application Service Provider (ASP) hosting that falls within State of Rhode Island guidelines and customer support services with rigorous security features that comply with HIPAA requirements for data transmission and data storage. The system will need to be available 24/7/365.

This Request for Proposal (RFP) provides a competitive means by which to select a single qualified provider to perform the implementation of the ePCR. HEALTH-EMS will base the qualified provider selection on several criteria:

- Satisfaction of Functional Requirements
- Training and Technical Support
- Vendor's Experience and Qualifications
- Cost

Upon review of the Proposals received, HEALTH-EMS may enter into a contract with the highest ranked qualified provider.

The initial project period is expected to begin on March 1, 2012. The initial contract period will be awarded for a period of 12 months with the option of renewal for (4) four additional 12-month periods at the exclusive option of the State of RI based on vendor performance and the availability of funds. This will be a 100% federally funded contract and charged to acct 2206116.02

1.2 Background

HEALTH-EMS is the state government entity that regulates the delivery of emergency medical services in Rhode Island. To that end, it licenses approximately 5,000 Emergency Medical Technicians (EMT's) and licenses approximately 95 Ambulance Services, who operate approximately 450 licensed Ambulances (both transporting and non-transporting). The mission of HEALTH-EMS is to protect the public by ensuring that all EMS providers are adequately trained and equipped. HEALTH-EMS also provides technical assistance to Ambulance Services and their personnel.

For every EMS incident, the responding crew documents the location and nature of the call, the assessment and treatment of the patient and other pertinent information. These reports are filed with the patient's record at the receiving hospital and at the Ambulance Service's headquarters. The reports are used by the hospital for the patient's continued health care, and by Ambulance Services for insurance billing (cost recovery), Quality Assurance/Quality Improvement (QA/QI), equipment/supply inventory and replacement, and statistical reporting to the community.

The current iteration of Rhode Island's statewide EMS incident reporting system, EMScan, was launched in 1992 and consists of data collected from paper run forms and/or electronic submissions. This existing system has a very limited dataset and does not easily support the intended purposes of capturing and analyzing the full spectrum of EMS information, which includes identifying public health trends, monitoring and reporting EMS system performance and analyzing the efficacy of emergency medical care. Capturing the data in electronic format at the time of first observation will improve efficiency of local EMS operations.

Many non-EMS organizations want to access EMS care data, including the Governor's Office on Highway Safety; Rhode Island Traffic Records Coordinating Committee (TRCC), the Rhode Island Association of Fire Chiefs (RIAFC), RI Chapter of the American College of Emergency Physicians (RI ACEP), the Hospital Preparedness Committee (HPPC), Rhode Island Emergency Management Agency (RIEMA), and the Department of Health's injury prevention and epidemiology programs. The proposed solution will support the provision of this information.

The specification and scope of services must address confidentiality and systems security, if information above is being shared (Ex: HIPAA) See also 2.3.1.1 – 2.3.1.3.

1.3 Project Vision

The implementation of ePCR will represent the first time Rhode Island EMS will have comprehensive information about EMS activities beyond the limited dataset currently available. Additional data and the ability to analyze it will assist HEALTH-EMS in assessing many aspects including: adherence to (and effectiveness of) EMS treatment protocols, success and weaknesses of education programs, the effect of using lights and sirens on patient outcome and planning for the distribution of resources. The ability to also incorporate legacy data, though more limited in scope, will provide a "reach-back" of nearly twenty years in order to analyze long-term trends in the EMS system. This capability will allow Rhode Island to meet national standards for data capture and research.

This ePCR system may be the only way to identify an evolving problem or success in emergency health care. HEALTH-EMS is constantly in need of information to set priorities, make plans and ultimately assure safe and effective delivery of EMS to the public. Access to information for these purposes is the highest priority of the EMS program in Rhode Island at this time.

Rhode Island's ePCR system will be an integral part of the state healthcare system's emergency preparedness data system, the Public Health Emergency Management Suite (PHEMS), which includes both a web-based Hospital Capacity System (HCS) and the web-based Patient Tracking System (PTS.) The ePCR must be capable of exchanging data with the third-party PTS system futhermore the selected Vendor would ideally have a PTS application available as an optional component of their ePCR system.

In addition to HEALTH-EMS needs for information, many local EMS agencies and their community partners use data gathered at the time of the incident to bill patients, track supplies, measure compliance with internal standards and report activities to the public. Many of these agencies are currently using paper incident reports that are later transcribed into electronic formats. Having ePCR will make these transactions more efficient and accurate, and the breadth of options for analyzing and presenting this information will be unprecedented.

The proposed database shall share information with other systems using the NHTSA Dataset Definitions and XML standard. The ePCR system shall be capable of exporting data to the National Highway Traffic Safety Administrations (NHTSA); Fatality Analysis Reporting System (FARS) which is a nationwide census providing NHTSA, Congress and the American public yearly data regarding fatal injuries suffered in motor vehicle traffic crashes. In Rhode Island the FARS program is coordinated by the Governor's Office on Highway Traffic Safety and the dataset sharing shall be administered by the Traffic Records Coordinating Committee which HEALTH EMS serves as a member. The ePCR system shall additionally, be capable of exporting data to the CODES system utilizing current XML standards and datasets. A large variety of possible output reports is expected. Community partners are key constituents. Important highway safety initiatives such as the Crash Outcome Data Evaluation System (CODES) are waiting for ePCR to go on line as a key component of its functionality before it can move forward. Epidemiologists are counting on ePCR's near real-time information to provide more timely alerts to potential outbreaks than their existing systems do.

Pre-hospital emergency care represents a largely unstudied portion of the medical system in part because of the lack of an automated incident reporting system. HEALTH-EMS will provide to qualified researchers much of the information gathered in ePCR not only for the benefit of EMS but for the betterment of health care delivery overall.

Due to the large number of potential users, the Rhode Island ePCR will be a web-based system hosted by the vendor thereby allowing for streamlined updates and installations of new versions. HEALTH-EMS desires the vendor to propose a solution that includes application hosting services, on-going maintenance, and support services. The vendor must also show how their system shall continue to meet the NEMSIS compliance standards as those standards evolve in future updates.

Additionally, many local Ambulance Services already have their own ePCR systems that they will wish to continue using. The Rhode Island ePCR will need to be capable of accepting data from these third-party systems, ideally in real-time or near-real-time. The ePCR system shall provide a web based portal for near real-time importing capability to accept data from other ePCR systems already in place in Rhode Island. This data sharing shall follow XML standards and have the capability of integrating with existing datasets following NHTSA Dataset definitions for export to other data mining systems.

Rhode Island's new ePCR will provide more EMS information in a more dynamic manner than previously thought possible. It is a pivotal development in the delivery and administration of emergency medical services in Rhode Island, and its importance mandates a thoughtful and rigorous evaluation of prospective vendors.

2. Scope of Work

2.1 Goal of the Project and Expected Product

HEALTH-EMS wishes to contract for a fully developed, "off-the-shelf" hosted Electronic Patient Care Reporting (ePCR) system that has participated in NEMSIS compliance testing and received a rating of 'Gold Compliant/Version 3.x'. Rhode Island's ePCR project will be an integrated, web-enabled, flexible and fully functional incident reporting system.

HEALTH-EMS is interested in an Application Service Provider (ASP) model hosted and maintained by the vendor.

Software: The State seeks a system with functionality supporting the following areas:

- Ease of data entry
- Report Generation
- Exchange of information with other systems
- HIPAA compliance for data transmission and storage.

Services: The State seeks to procure the following services:

- Configuration, hosting and testing of the selected software solution
- Development of inbound and outbound interfaces
- Maintenance of separate environments for Development, Testing and Production
- Implementation Services
- Requirements validation
- Software maintenance and enhancement support
- Systems documentation
- Testing and User Acceptance Testing
- Initial training
- User support
- Ongoing hosting for the duration of the contract

2.2 Major Project Activities and Deliverables

An EMS ePCR is needed to enable entry and update of incident reports. The data will include all the data elements established by the latest version of NHTSA/NEMSIS.

All data collected by the system will be owned exclusively by the State of Rhode Island. Only persons with the appropriate permissions assigned by HEALTH-EMS will have the right to access the data or to download the data directly from the system at anytime.

Individual Ambulance Services will have access to all data from their ambulance calls; a smaller set of data will be gathered at the state level and a still smaller set will be sent on to the federal level for national statistics and analysis.

The Vendor will communicate with project stakeholders to finalize the business requirements. The Vendor will designate a Project Manager who will communicate with the HEALTH-EMS ePCR Project Manager to coordinate and schedule the solution design, implementation, and associated deliverables such as training and user acceptance testing, as well as approval of deliverables and any required change management.

Contract deliverables will include the following:

- Written Deliverables:
  - A project work plan
  - Weekly project status reports
  - Change management plan
  - Detailed testing plan and testing results
  - Knowledge transfer plan
  - Comprehensive training plan, materials and curriculum for a train the trainer model
  - End user support plan
  - Complete system documentation: should include technical overview and specification, software configuration, user documentation, security system administration documentation, data model diagram.
  - User Manual & Training Materials
  - Maintenance and operational contingency plan

- Detailed system architecture plan including hardware, security, backup/restore methodology, etc.

- Software Deliverables:
  - Specifications for environments for test, training and production environments
  - Base System Software and licensing
  - Rhode Island-specific Customization/Configuration
  - Functioning In-Bound and Out-Bound Interfaces
  - Import legacy data from Rhode Island's existing "EMScan" PCR system.
- Non-software Deliverables:
  - Conduct project kickoff meeting
  - Conduct unit, system, and integration testing
  - Coordinate User Acceptance Testing (UAT)
  - Conduct Training (train the trainer model) for Administrators and End Users
  - Conduct planning sessions and meetings for cutover to new software
  - Provide ongoing maintenance and operations support (including documentation of help desk hours of operation and levels of service)
  - Provide software version upgrades during the support period
  - Assurance of uninterrupted, redundant hosting environment

2.3 Description of Desired Functionality

2.3.1 High Value Features

High Value features represent the minimum set of attributes expected in the Rhode Island EMS ePCR system. A list of High Value features organized by subject area follows.

2.3.1.1 Data Capture Requirements

1. The application User Interface (UI) shall conform to industry-standard best practices for usability via a user friendly, browser-based data entry interface.
2. During data entry, users should have the ability to exit and save a partial record without completion and return to finish entry at a later time.
3. When a partial report is submitted, the report can be accessed by the provider (EMT) and/or others with permission for validation, update and approval.
4. Application should have a search function to search by multiple record identifiers.
5. The system should incorporate industry standards such as NEMSIS.
6. The data capture solution must validate data at data entry and report a user-friendly error message if incorrect.
7. Data must be securely transmitted between the local input device and the repository in a manner that prohibits unauthorized interception or viewing and complies with all federal HIPAA and State of Rhode Island information security requirements.
8. Provide for a streamlined data capture process that minimizes keystrokes.
9. Free- text ("Comment") boxes should be available where appropriate.
10. Data capture solution assigns unique numbers following the NHSTA uniform pre-hospital dataset. The unique identifiers shall include the following; Incident Number, EMS Unit Response Number, Patient Care Report Number. The unique identifier for the PCR shall have at least three (3) characters in it.
11. The format shall follow an intuitive flow for data entry and provide features such as highlighting of required fields, table driven drop down lists, pre-populated fields, and capturing system dates.

12. The list of allowable values for each data element should be presented in a consistent and intuitive order (alphabetically or most common response first). The list of allowable values shall only be those allowed by NEMSIS or determined necessary by State of Rhode Island.
13. The system should be capable of being pre-populated with service information, service personnel, pick up and drop off facilities, etc by the System Administrator.
14. The system shall provide a pre-identified, service-specified scroll-down list of personnel.
15. The system shall provide a pre-identified, Ambulance Service-specified scroll-down list of facilities for both pick-up and destination. Space will be provided to capture non-Ambulance Service personnel (observers, personnel borrowed from other Ambulance Services, etc.) in addition.
16. As part of the base system cost, provide for multiple data capture solutions including fixed and mobile locations. System must support the use of either live (real-time) transmission of data or the ability to transmit it later. The ePCR system shall provide a web based portal for near real-time importing and exporting capability to NEMSIS, FARS, CODES, PHEMS, or other key systems utilizing XML standards for data sharing.
17. The system must not allow a record to be closed until all of the following data elements are completed: the incident name and date, time of dispatch; the responding agency's name; the disposition of the incident; and the time of termination of the call, PCR number, type of service requested, primary role of the unit, EMS Unit call sign, response mode to scene, and unit back in service date/time. HEALTH EMS shall review these requirements periodically and make changes as necessary based on NHTSA/NEMSIS standards.
18. The system shall allow for multiple sets of "closed call" rules depending on the nature and disposition of the call. Examples include: cancelled calls, medical transports (convalescent), 911 calls, specialty care transports, HAZMAT, rescue, standby. The system shall also allow for state- and service-specific closed call rules. These rules will specify data elements that are desired when obtainable but are not required. The user shall be allowed to close the record without completing these fields, but the system must alert the user to missing information and provide links to the relevant screens before the record is closed. Additional closed call rules should include: 1) if patient contact (defining Pt Contact as Disposition is NOT Cancelled or No Patient Found) is made then the following must be documented with a valid value: Age, Age Units, DOB, Race, Ethnicity, Provider Primary Impression(s), Primary Symptom, etc. 2) if Provider Impressions contains "Arrest" then the Cardiac Arrest Elements must be documented with a valid value. 3) if Provider Impression = Traumatic Injury, then Cause of Injury must contain a valid value. Etc.
19. The system shall assign a confidence or validation percentage at the conclusion of the report.
20. The system shall allow the user to start from any screen and move freely through the incident report.
21. The system must provide an audit trail for all submissions, access, faxing and printing Incident reports as required by HIPAA.
22. The system shall connect multiple incident reports created by multiple agencies for a single incident in a manner that makes sense to the user.
23. The system shall allow for multiple patients for a single incident and identify them with variations to the Patient Care Report Number (E01_01). This Incident Number (E02_02) shall remain the same for all ambulance units within the EMS agency and if possible between agencies. The EMS Unit Response Number (E02_03) shall remain the same for an incident with multiple patients.). The system should copy identical data for each report (incident location, time, etc.) to each new record.
24. The system shall provide an optional, automated narrative feature that incorporates information from other parts of the report. The system shall allow the EMS agency to inactivate the auto-narrative if desired.
25. The system should calculate field values whenever possible, i.e., the Glasgow Coma Score and Revised Trauma Score.
26. Maintain history of previous incidents and auto-populate pertinent fields when the agency responds subsequent times to the same location or patient.

2.3.1.2 Data Storage and Exchange Requirements

27. Utilize XML for exchanges between the ePCR and other data systems.

28. Share identifiable incident report information with medical facilities upon completion of report through data upload, print capability or automated fax.
29. Share non-identifiable data between HEALTH-EMS and other agencies as applicable.
30. The system shall be capable of submitting all data elements noted as "National Elements" to NEMSIS. The system shall allow a report to be created at the state and agency level to identify records that do not meet the criteria for export. In this manner that agency or state can edit the applicable records.
31. Users with permissions will be able to download ePCR data **securely** at any time in a text file or spreadsheet format.
32. Provide interface capability to current **versions** of electronic billing, QA/QI, and incident reporting systems in use by Rhode Island EMS agencies.
33. Provide an interface with National Fire Incident Reporting System (NFIRS).
34. The system should be flexible enough to accommodate other interfaces in the future. All interfaces need to be defined and tested before finalization.

2.3.1.3 Reporting and Data Analysis Requirements

35. Allow standard reports to be run by specific users based on user role.
36. Allow specified users/administrators with appropriate permissions the ability to create ad-hoc reports.
37. Allow users with permissions to download ePCR data **securely** at any time in a text file or spreadsheet format.
38. Provide a robust solution for analysis and reporting that allows for easy and timely access and manipulation of data without affecting system performance.
39. Provide ability to search any field or a combination of fields in the incident report such as date, location and chief complaint.
40. Provide analysis tools to authorized users to create and save queries and ad hoc reports from the data repository.
41. Allow users with permissions to query the extent to which users are meeting the prescribed standards for completing a report (timely data entry, compliance with closed call rules, etc.)
42. Provide web-based analysis tools for ad-hoc and pre-determined reports.
43. Provide reports to compare accident rates/accident history for safety concerns.
44. Provide reports to compare incident history and rates of medical complaints/symptoms for epidemiological concerns.
45. Provide ability to report on patient history by location or name.
46. Generate reports to include utilization of resources, skill tracking and service hour utilization.
47. Provide ability to have automated reports sent back to EMS agencies submitting via 3rd party software to the Rhode Island system related to the quality of data submitted (submission report).

2.3.1.4 General Requirements

48. The system shall provide a mechanism for tracking report status through approval and completion.
49. The system shall provide Ambulance Service administrators with the capability to review and edit incident reports prior to submission.
50. The system will be pre-populated with information about the Ambulance Services and their personnel, vehicles, equipment, etc. The system will include a means to import data that is available in an electronic format, such as the HEALTH-EMS electronic licensing system ("License2000")
51. An Ambulance Service administrator shall be able to update Service Personnel information. Such updates should trigger a notification to HEALTH-EMS.
52. An Ambulance Service administrator shall be able to maintain security and access levels for only their service.
53. A user with multiple Ambulance Service affiliations should be able to enter a single User ID and password and select the relevant Ambulance Service affiliation from a drop-down list.
54. Provide ASP hosting services for the ePCR system, including maintenance and upgrades of software as they come available. Provide 24/7/365 Disaster Protection and Recovery for ASP and Web hosted ePCR solution. This 24/7/365 disaster protection and recovery capability shall meet national

standards for Continuity of Operations (COOP) and Continuity of Government (COG) planning as it relates to data system transmission, storage, protection and recovery.

55. Provide ability to add or deactivate data elements and variables (such as procedures and medications) within 24 hours of request by authorized users.
56. The solution shall have a minimum of 99.99% availability for event entry. Please document average, minimum and peak availability levels and response times. Please document how each of these is calculated and what is included, i.e. unplanned outages, planned outages, etc.
57. Provide a method of backup and recovery of software and data.
58. Provide ability for ad hoc reporting.
59. Provide ability to print reports to a local or network printer.
60. Provide a consistent look and feel across the product to assist in the user's learning and ongoing system use thereby improving productivity. Provide a consistent icon appearance for common functions and include user-friendly features such as pull-down menus; point and click operation; scroll bar; scrollable list boxes; and comment/text boxes.
61. Provide the ability for the user to return to the previous screen within a menu or a previous menu.
62. Provide popup windows on data entry screens that display field values and permit selection of field values based upon cursor location.
63. Allow the user to toggle between the active application and other applications currently running.
64. Provide online error messages and corrective actions needed that make sense to the user.
65. Provide basic integration with desktop applications, including support of "cut and paste" capabilities between desktop applications.
66. Provide the ability to download to spreadsheet or database applications via commonly accepted formats such as .csv files.
67. Allow for the efficient implementation of system upgrades and new releases: maintenance for scheduled implementations of point releases or major upgrades shall be done with minimal down time and no loss of data.
68. Provide a means for HEALTH-EMS to 'test' a new version in the Test environment prior to upgrading the Production environment.
69. Allow for application upgrades and downgrades while preserving the integrity of the data that has been entered into the database.

2.3.1.5 Training, Documentation, and Support

70. Provide online help and search within the application.
71. Provide necessary tools for training users who will implement the 'Train the Trainer' model.
72. Provide application support including but not limited to phone and email. The quote shall state the maximum turnaround time for addressing and resolving all reported support issues.
73. Provide hard copies and digital copies of user's manuals and on-line help.
74. Provide documentation related to upgrades in a clear format and understanding with screen shots and instructions for use which will allow for distribution to the user community.
75. Provide a separate but identical web based testing and training system that will be in place prior to implementing the live system and will remain functional after the system is active. Data entered in this system will not affect the live data.

2.3.1.6 Technical Requirements

76. The system should be browser independent. It should be capable of functioning on all common modern browsers.
77. No client software installation should be required.
78. **All data must** be available to the State on demand in a standard usable format. Ambulance Service-specific data must be available to individual Services on demand in a standard usable format.
79. The criteria for defining and terminating the acceptance testing phase and switching to active production, specifically with regard to warranties and service contracts, shall be clearly defined and understood by all parties at the time the contract is signed.
80. Separate environments shall be maintained for at least Development, Test, and Production.

2.3.1.7 Security and System Integrity

81. A User Account and Password will be required to enter, update and report on the data.
82. Permissions to view, enter, update data, run reports, etc. will be granted based on roles.
83. The system shall provide administrative functions for user setup, role definition, security profile maintenance, etc. to be done by ePCR administrators. HEALTH-EMS should be able to delegate administrative functions to local Ambulance Service administrators. The system must allow an Ambulance Service administrator to update users and permissions for only users from their service.
84. Only users with appropriate permissions may see or securely download data from the system.
85. The solution shall meet all applicable State and Department security requirements before going live in production mode. Explanation of current security systems is required and any certificates regarding security by the system or hosted environment shall be provided.
86. The solution shall comply with all applicable Rhode Island General Laws to assure protection and security of personal information, including protection from identity theft.
87. The selected vendor, their application, and data stored/transmitted by the application shall comply with all applicable HIPAA regulations for security and privacy.
88. The solution shall support administration of permissions/privileges by group.
89. Segment, isolate, and secure Rhode Island data and ensure it is not compromised.
90. Provide the State with a comprehensive security plan and procedures, including but not limited to access controls, segregation of duties, and change controls. The State must approve the security plan as part of the implementation phase, and reserves the right to perform security checks.
91. In the event of natural and unnatural disasters, including but not limited to hacking and acts of terrorism, a system will be in place for disaster recovery and business continuity. The bidder shall present to the State a disaster recovery and business continuity plan that must be approved as part of the implementation phase.
92. Data must be securely transmitted between the local input device and the repository in a manner that prohibits unauthorized interception or viewing and complies with all federal HIPAA and State of Rhode Island information security requirements. Describe protocol used to protect data traveling over the internet between the ePCR system and its users.
93. The system shall log off a user after a specified period of inactivity.
94. Provide an advanced secure mechanism, such as two-factor authentication, that allows authorized users to access the system in a timely and efficient manner.
95. Single password: Allow for the establishment of passwords, such that a user only has to log on once to access all modules for which he/she is authorized to access.
96. System should follow best practices in establishing requirements for Password strength, length, expiration, re-use, lockout, etc. Passwords must adhere to State of Rhode Island Password Policy.
97. Password Mask: Mask password entry so that passwords cannot be viewed while being entered.
98. Mass Password Expiration: Provide the ability to enforce the changing of all passwords upon demand.
99. Reminder to Change Password: Provide prompting to modify a password at least fifteen (15) days prior to expiration.
100. Provide a user whose password has expired with a final warning and one more login attempt to change their password.
101. Password reset: Allow security coordinators to reset passwords without knowing the existing password.
102. Multiple Logons: Provide the ability to limit logon of a user ID to one workstation at a time. When such functionality is enforced, provide a message that the user ID is already in use if a user attempts to log on to a second workstation.
103. Menu restrictions: Limit the display or view on system menus where the user does not have the proper privileges or rights to display.
104. The solution must provide data integrity, validation and verification. It must ensure the integrity of the data from the time it leaves the user's entry point until it is recorded in the database, as well as when the information is provided for reporting and analysis.
105. System Documentation should include technical overview and specifications, software configuration, user documentation, data model diagram, training documentation and manuals/test

plans and change control process. This documentation shall make clear which errors can be fixed by the user or local administrator and those that would require the vendor's expertise.

106. Testing shall include planning, test scenarios and script development, data and system preparation for testing, execution of testing and support of HEALTH-EMS and Ambulance Services interfaces during the acceptance testing.

2.3.2 Important Features

Important features are highly desirable attributes that will enhance the utility and productivity of the system. A list of important features organized by subject area follows:

2.3.2.1 Data Capture Requirements

107. Provide a data acquisition capability for medical recording devices such as cardiac monitors, saturation oxygenation, end tidal carbon dioxide, etc.
108. Utilize a standard list of unique names for roads – use NEMA standards.
109. Provide an interface to Computer Aided Dispatch initially from 911 call centers and expanding to other PSAPs (Public Safety Answering Points) and dispatch centers.

2.3.2.2 Data Storage and Exchange Requirements

110. The solution shall share identifiable and non-identifiable data with other systems in real time or near real time.
111. System shall have the capability to export and import incident reports between Rhode Island's ePCR system and other states' NEMSIS-compliant systems with a single data entry (i.e., a Rhode Island Ambulance Service transports a patient to a Massachusetts hospital, a Massachusetts ambulance transports a patient to a Rhode Island hospital, a Massachusetts ambulance picks up a patient in Rhode Island but transports to a Massachusetts hospital).
112. Provide document and digital photo imaging storage capability.

2.3.2.3 Data Analysis and Reporting Requirements

113. Provide online documentation.
114. Provide the ability to produce charts and graphs.
115. Provide map-based analysis / GIS mapping function / GIS integrated with accident or epidemiological data – ability to click on an interactive map to identify accident or other types of hot spots.
116. Provide aggregate information directly to interested organizations via download from web.

2.3.3 Desirable Features

The following list represents desirable attributes of the Rhode Island ePCR system.

117. If more than one service responds to a single incident, the system should provide a logical method to link the incident numbers.
118. Integrate GPS with data capture process where technology is available.
119. Provide a GIS-based option to allow collection of state plane coordinates and nodal reference points to augment or supplement GPS.
120. Support data entry using bar-coded drivers' license, mass casualty or other patient bracelet tag.
121. Provide for Personal Digital Assistant (PDA) Field data entry meeting real time requirements.

2.3.4 Optional Subsystems

If they are not already part of the Vendor's proposed ePCR system, the State wishes to consider the following optional subsystems. These should be included in the Vendor's proposal and clearly indicated as optional in the quote.

1. A **Patient Tracking System** capable of tracking patients and their hospital transport destinations, both during a disaster response and as part of day-to-day EMS operations.
2. A **Trauma Registry** capable of tracking and developing reports on patients who were involved in any type of trauma based on care provided and patient outcomes.

3. A **Stroke Registry** capable of tracking and developing reports on patients who experience some degree of cerebrovascular accident, their care provided, and patient outcome.
4. A **Hospital Data Interface** that utilizes EMS data to assist receiving facilities in developing a more robust patient care plan and links patient outcome data from the hospital and pre-hospital environments.
5. **A Special Needs Registry** is a system for the identification of Rhode Islanders who require special assistance during emergencies or disasters. This registry is a repository of adults and children with chronic conditions and special healthcare needs such as life support systems including; Oxygen, ventilators, assistive animals, wheelchair, etc.). This database is managed by HEALTH and linked to the Computer Aided Dispatch 911 Call Center.

3. General Provisions

3.1 Contract Terms

The selected vendor will sign a contract with HEALTH-EMS to provide the items named in their responses, at the prices listed. Minimum support levels, as well as terms and conditions from this RFP and the vendor's response will become part of the contract. This contract will be subject to review throughout its term. HEALTH-EMS will consider cancellation upon discovery that a vendor is in violation of any portion of the agreement, including an inability by the vendor to provide the products, support and/or service offered in their response.

3.2 Contract Award

HEALTH-EMS may award one or more contracts and reserves the right to make additional awards to the same vendor or other vendors who submitted proposals at any time during the first year of the contract if such award is deemed to be in the best interest of the HEALTH-EMS.

3.3 Ownership of Work Product and Intellectual Capital

Except for proprietary or commercial software, the HEALTH-EMS will have all ownership rights to software, or modifications thereof, as well as associated documentation designed, developed, or installed. All data, technical information, materials gathered, originated, developed, prepared, used or obtained in the performance of the contract, including, but not limited to, all reports, surveys, plans, charts, literature, brochures, mailings, recordings (video and/or audio), pictures, drawings, analyses, graphic representations, software computer programs and accompanying documentation and print-outs, notes and memoranda, written procedures and documents, regardless of the state of completion, which are custom developed outside the Incident Reporting application software or are a result of the services required under this contract shall be and remain the property of HEALTH-EMS and shall be delivered to HEALTH-EMS upon 30 days notice by HEALTH-EMS. With respect to custom software computer programs outside the Incident Reporting application software and/or custom source codes developed for HEALTH-EMS, the work shall be considered "work for hire", i.e., HEALTH-EMS, not the contractor or subcontractor, shall have full and complete ownership of all software computer programs and/or source codes developed.

All work products, and deliverables produced under contracts awarded as a result of this bid will be the exclusive property of HEALTH-EMS. This includes, but is not limited to, custom developed software, documentation, and development materials. A vendor shall not sell a work product or deliverable produced under a contract awarded as a result of bids without explicit permission from HEALTH-EMS.

The vendor's RFP must clearly describe the terms of all licensing considerations, such as an End User License Agreement.

3.4 Subcontractors

Any subcontractors hired by the primary contractor must adhere to the same standards and contract provisions applicable to the primary Vendor. The primary Vendor retains overall responsibility for contract performance.

3.5 Invoicing

All invoices are to be rendered by the vendor on the vendor's standard invoice billhead and forwarded to the HEALTH-EMS ePCR Project Manager. Your proposal must clearly specify the address for submitting payments.

3.6 Contractor Performance Guidance

All bidders will be held to specific performance review criteria over the life of the project to ensure that project deliverables as outlined in the RFP and attested to in the Scope of Work (SOW) are being met. Review of project deliverables at predetermined benchmarks will occur at intervals agreed upon by both the vendor designated project manager and HEALTH-EMS ePCR Project Manager.

Incomplete or missed deliverables as specified in the SOW and illustrated in the project plan without prior notification to, and agreement by the designated project manager and/or HEALTH-EMS ePCR Project Manager will result in remedial action which may include but is not limited to:

- Adjustment of overall project cost basis
- Re-engineering of solution to correct inconsistencies by contractor at their cost

3.9 Contractor Staffing

Key staff members must be assigned to this contract for the full duration proposed. No Key staff member may be reassigned or otherwise removed early from this project without explicit written permission of the HEALTH-EMS ePCR Project Manager. This pertains to permanent or temporary changes or deletions from the Contractor's key management, supervisory, or professional personnel.

The vendor must identify at least 2 "Key" staff members who will remain on this project until completion (of the Implementation activity), unless indicated otherwise in the vendor's proposal. The vendor may propose other staff members as "Key" if desired.

If the vendor prematurely removes a Key staff member from the contract without HEALTH-EMS approval, for any reason other than described below, the vendor will agree to provide 40 hours of additional services to HEALTH-EMS at no charge as a penalty for the early removal of a Key staff member. In addition, the vendor will make every reasonable effort to ensure that the early removal of a Key staff member has no adverse impact on the successful completion of this project. The penalty will not apply in cases where the Key staff member leaves the contractor's employ, becomes unable to perform job duties due to injury or illness, or the State requests that the Key staff member be replaced. HEALTH-EMS must approve, in advance, replacements for Key staff members.

3.10 Key Contractor Responsibilities

The selected Contractor must assume primary responsibility for the implementation of the ePCR system.

The Contractor will successfully implement the plan to accomplish the tasks described and defined in the Scope of Work, Section 2.

The Contractor will report to the HEALTH-EMS ePCR Project Manager who has overall responsibility for the project schedule and adherence to contract provisions.

The Contractor must abide by all State policies, standards and protocols as defined by the HEALTH-EMS ePCR Project Manager.

The Contractor will be expected to travel to Rhode Island for specific events, i.e. product demonstrations, implementation, training, etc, during the course of the contract. The contractor will be required to acquire lodging and means of transportation as required in order to achieve the project goals. Travel and living costs are not billable to the State of Rhode Island. The contractor must provide personal computers for this project. Communications and other administrative expenditures must be included in the scope of work estimates. The contractor must provide a means for electronic communication.

The Contractor must receive HEALTH-EMS ePCR Project Team approval at integral steps in the process.

The Contractor must be responsive to the ongoing monitoring and evaluation of the work provided to the contractor by the HEALTH ePCR Project Manager and Project Team.

3.11 Warranties

The Contractor represents and warrants that Deliverables, after Final Acceptance, will perform and operate in compliance with the requirements and other standards of performance contained in the Contract (including all descriptions, specifications and drawings made as part of the Contract) for a period of one hundred eighty (180) days. In the event of a breach of this warranty, Contractor will promptly correct the affected Deliverable(s) at no charge to HEALTH-EMS.

3.12 Delivery

If the vendor proposes to order any hardware or software for use on this project: All equipment pricing is to include F.O.B. delivery to the ordering facility. No request for extra delivery cost will be honored. All equipment shall be delivered ready for immediate use, unless otherwise requested by HEALTH-EMS. Liability for product delivery remains with the vendor until delivered and signed for by HEALTH-EMS, in accordance with the Division of Purchasing terms and conditions.

3.13 Quality

If the vendor proposes to order any hardware or software for this project: All products provided under this agreement will be new and unused, unless otherwise stated. Factory seconds or remanufactured products will not be accepted unless specifically requested by HEALTH-EMS. All products provided by the vendor must meet all federal, state and local standards for quality and safety requirements. Products not meeting these standards will be deemed unacceptable and returned to the contractor for credit at no charge to the HEALTH-EMS.

4. Management Structure and General Information

4.1 Project Plan Management

The vendor will be responsible to the HEALTH-EMS ePCR Project Manager and the IT liaison having overall responsibility for the project schedule and adherence to contract provisions. A stakeholder group will be assembled that includes HEALTH staff from both HEALTH-EMS and Division of Information Technology (DoIT) as well as representatives from various Ambulance Services.

The vendor must meet with the HEALTH-EMS ePCR Project Manager, the IT liaison, and the stakeholder group as needed to develop requirements, architecture, and implementation plans. The vendor will abide by all HEALTH-EMS standards and protocols as defined by the HEALTH-EMS ePCR Project Manager and IT liaison. The vendor will be required to coordinate all efforts with existing HEALTH-EMS staff.

The vendor must develop a detailed “baseline” project plan and schedule within 14 days of start of work (approximately one month after contract signing) that requires the HEALTH-EMS ePCR Project

Manager's approval. Updates to this project plan must be submitted, at least twice a month. The Project Plan must be submitted and updated in a mutually agreed upon format.

4.2 Status Reports

The vendor will have a Project Status Meeting bi-weekly, or more frequently as needed, with the HEALTH-EMS ePCR Project Manager and the IT liaison, unless mutually agreed upon. The vendor will be expected to provide bi-weekly, written status reports to the HEALTH-EMS ePCR Project Manager and the IT liaison. This Status Report will include: all tasks accomplished, incomplete, or behind schedule in the previous two weeks (with reasons given for those behind schedule); all tasks planned for the coming week, an outline of the current status of tasks (e.g., % completed, completed, resources assigned to tasks, etc), and the status of any corrective actions undertaken. The report will also contain the current status of the project's technical progress and contractual obligations, achievements to date, risk management activities, unresolved issues, requirements to resolve unresolved issues, action items, problems, contractor working relationships, and installation and maintenance results where applicable.

In addition, the contractor's project manager may be asked to attend certain departmental meetings with the HEALTH-EMS ePCR Project Manager to report on the progress of the HEALTH-EMS ePCR project.

Payments will only be made when deliverables are met as determined by HEALTH ePCR Project Manager and proven to be in working order based on the contract

4.3 Project Management

4.3.1 Issue Management

The Contractor shall maintain an issue log for the project. The issue management log must be available electronically to the HEALTH-EMS ePCR Project Manager and the IT liaison at all times. The issue log must be updated bi-weekly and must have the following elements:

- Description of issue
- Issue identification date
- Responsibility for resolving issue.
- Priority for issue resolution (to be mutually agreed upon by HEALTH-EMS and the Contractor)
- Resolution date
- Resolution description

4.3.2 Risk Management

Contractor must create a risk management plan for the project. A risk management plan format will be submitted to HEALTH-EMS for approval within twenty (20) business days after the effective date of the contract resulting from this RFP. Once both parties have agreed to the format of the plan, it shall become the standard to follow for the duration of the contract. The plan must be updated monthly.

4.3.3 Change Management (Pertaining to Contract Provisions)

The following provides a detailed process to follow if a change to this Statement of Work (SOW) is required.

- A Project Change Request (CR) will be the vehicle for communicating change. The CR must describe the change; the rationale for the change and the effect the change will have on the project.

- The designated Project Manager of the requesting party will review the proposed change and determine whether to submit the request to the other party.

- The Contractor's Project Manager and HEALTH-EMS ePCR Project Manager will review the proposed change and approve it for further investigation or reject it. Contractor will specify any charges for such investigation. If the investigation is authorized, the State and the contractor will sign the CR, which will constitute approval for the investigation charges. (The timing of signature by the HEALTH-EMS ePCR Project Manager will be in accordance with the State's Administrative Board or other applicable approval process.) Contractor will invoice the State for any such charges. The investigation will determine the effect that the implementation of the CR will have on price, schedule and other terms and conditions of the Agreement.

A written Change Authorization and/or Project Change Request must be signed by both parties to authorize implementation of the investigated changes.

Proposal Requirements

5.1 Proposal Guidelines

The State of Rhode Island issues this Request for Proposal. The Issuing Officer, Jerome Moynihan, is the sole point of contact from the RFP release date until the selection of a contractor.

This RFP defines the scope of services required and work/management structure within which the contractor must operate. In order to be considered for selection, contractors must complete responses to this RFP in the format described in this document. Non-conforming proposals may not be considered.

All quotations must be fixed cost bids for specific deliverables. No time and materials contracts will be considered. Contractor must include a statement in the proposal certifying that the price was arrived at without conflict of interest.

5.2 Single Point of Contact

All communications concerning this RFP are to be addressed in writing to the attention of the Purchasing Agent listed on page 1 of this proposal. The Purchasing Agent is the sole contact for this proposal. Attempts by bidders to contact any other party could result in the rejection of their proposal.

5.3 Question and Answer Period

Questions concerning this solicitation must be e-mailed to the division of Purchases at questions@purchasing.state.ri.gov no later than the date and time listed on the cover sheet of this solicitation. Send your questions in a Microsoft Word format. Please reference the RFP # on all correspondence. Questions received, if any, will be posted and answered on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download the information. If technical assistance is required to download, call the Help Desk at (401) 222-2142, ext. 134.

5.4 Bidders Conference

There will be no bidder's conference.

5.5 Time table

The table below presents HEALTH-EMS's expected schedule for this RFP and contracting process. Please note that HEALTH-EMS may change this schedule at any point.

RFP Published	23 Nov 11
Written Questions Due	7 Dec 11
Answers to Questions Posted	tbd.
Proposal Due (see below for detailed instructions on Proposal Format and submission instructions)	tbd.

Presentation for finalists to showcase products (see Section 6.2)	tbd.
Selection of Qualified Contractor	tbd.
Contract Negotiation Period	tbd.
Estimated Start work date	tbd.
Project Completion	tbd.

HEALTH-EMS reserves the right to accept or reject any or all proposals. Selected HEALTH-EMS staff and invited stakeholders will evaluate proposals. If a proposal is selected, the chosen contractor will be invited to negotiate a contract for all or part of the activities outlined in this RFP.

5.6 Proposal Submission

Vendor Questions & Response Submission:

Questions concerning this solicitation must be e-mailed to the division of Purchases at questions@purchasing.ri.gov no later than the date and time listed on the cover sheet of this solicitation. Send your questions in a Microsoft Word format. Please reference the RFP # on all correspondence. Questions received, if any, will be posted and answered on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download the information. If technical assistance is required to download, call the Help Desk at (401) 574-9709.

Responses **(an original plus three copies**) should be mailed or hand-delivered in a sealed envelope marked "RFP #7449257: Statewide EMS Electronic Patient Care Reporting System. Proposals faxed, or emailed, to the RI Division of Purchases will not be accepted.

By Courier:
Department of Administration
Division of Purchases, 2nd floor
One Capitol Hill
Providence, RI 02908-5097

NOTE: Proposals received after the due date and time listed on the cover page of this solicitation will not be considered. Proposals misdirected to other State locations or are not present in the Division of Purchases by the scheduled due date and time will be determined to be late and will not be considered. Proposals faxed to the Division of Purchases will not be considered. The official time clock is located in the reception area of the Division of Purchases.

The proposal must be organized in the order described below. Use the numbering designations outlined as Response Sections I, II, III, IV, V, VI, VII, VIII, IX and X. when responding to business and technical requirements outlined in attachments, begin each Response Section with the Title and Roman numeral designation, but use the numbering within attachments. Use of the numbering designations will allow evaluation to score areas appropriately. Failure to use number designations may result in scores of zero as reviewers may be unable to find answers that correspond to numbered specification/requirements.

5.7 Proposal Format

Responses must include the following

1. An R.I.V.I.P. generated bidder certification cover sheet (downloaded from the RI Division of Purchases Internet home page at http://www.purchasing.state.ri.us

2. A statement of experience describing the Vendor's background, qualification and experience with and for similar projects, and all information described earlier in this solicitation.

3. A cost proposal

4. A completed and signed W-9 downloaded from the RI Divison of Purchases Internet home page at http://www.purchasing.ri.gov

5. In addition In addition to the multiple hard copies of proposals required, Respondents are requested to provide their proposal in electronic format (CD, flash drive). Microsoft Word / Excel OR PDF format is preferable. Only 1 electronic copy is requested. This CD or diskette should be included in the proposal marked "original".

The format of the vendor's proposal must include, at a minimum the following chapters, numbered as follows:

Response Section 1: Transmittal letter and Signed Rhode Island Tax Certificate and Insurance Certificate.

The Letter of Submittal must be signed and dated by a person authorized to legally bind the Vendor to a contractual relationship, e.g., the President or Executive Director, if a corporation, the managing partner, if a partnership, or the proprietor, if a sole proprietorship. Along with introductory remarks, the Letter of Submittal must include by attachment the following information about the Vendor and any proposed subcontractors:

1) Name, address, principal place of business, telephone number, and fax number/e-mail address of legal entity or individual with whom contract would be written.
2) Legal status of the Vendor (sole proprietorship, partnership, corporation, etc.) and the year the entity was organized to do business, as the entity now substantially exists.
3) Location of the facility from which the Vendor would operate;
4) State the number of years experience developing and deploying Electronic Patient Care Reporting (ePCR) systems for Emergency Medical Services.
5) Vendor shall have adequate financial resources and be financially sound as demonstrated by the furnished balance sheet/financial statements, showing that the Vendor has been in business continually for the last three (3) years.
6) Vendor must provide a single point managerial level contact to coordinate all HEALTH-EMS requirements and to be the point of contact for any problems/questions that may arise.
7) Vendor procedures shall be in compliance with all applicable Federal and State laws.

In addition, a signed Rhode Island Tax Certificate and Insurance Certificate (Attachment D) must also be included in Response Section I

Response Section II: General Background and Qualifications

Each bidder must provide the following information about their company so that HEALTH-EMS can evaluate the Bidder's stability and ability to support the commitments set forth in response to the RFP. HEALTH-EMS may require additional documentation to support and/or clarify requested information.

1) A brief description of the company, including past history, present status, future plans, etc.
2) Company size and organization
3) Disclose any history of defaults, contract terminations, and bankruptcies
4) Describe the most recent statewide or enterprise wide incident reporting systems the vendor has built.

5) Describe your relationship(s) with the company providing the application server solution(s) utilized by your solution (if not provided internally).
6) Provide an overview of your customer support model(s). Please provide copies of any licensing or support agreement documents.
7) Please describe any supported User Groups, conferences, listserves, etc.
8) Please provide your Service Level Agreement.

Response Section III: Ability to Implement the Solution

The proposal should contain the approach that the provider will take in implementing the enterprise incident reporting solution. Explain, in detail, the vendor's experience working with Emergency Medical Services, and building, designing, and supporting incident reporting systems.

Explain your experience with hosting and supporting applications, i.e. your Application Server Provider experience.

Provide a list of standard queries and reports (such as those created for other customers) that could be included in the Rhode Island ePCR system.

Include details of your maintenance & support agreement for upgrades, patches, new versions, etc.

Response Section IV: References

Provider should provide at least three (3) references where the vendor has built a similar statewide incident reporting system within the last 5 years. References must include a description of the project and the technology used. All references must include the name, title, phone number, and email address of the person who can speak to the vendor's work on the project.

Response Section V: Staffing

Key staff members must be assigned to this contract for the full duration proposed. No Key staff member may be reassigned or otherwise removed early from this project without explicit written permission of the HEALTH-EMS ePCR Project Manager.

The vendor must identify at least 2 "Key" staff members who will remain on this project until completion (of the Implementation activity), unless indicated otherwise in the vendor's proposal. The vendor may propose other staff members as "Key" if desired.

If the vendor prematurely removes a Key staff member from the contract without HEALTH-EMS approval, for any reason other than described below, the vendor will agree to provide 40 hours of additional services to the HEALTH-EMS at no charge as a penalty for the early removal of a Key staff member. In addition, the vendor will make every reasonable effort to ensure that the early removal of a Key staff member has no adverse impact on the successful completion of this project. The penalty will not apply in cases where the Key staff member leaves the contractor's employ, becomes unable to perform job duties due to injury or illness, or the HEALTH-EMS requests that the Key staff member be replaced. The HEALTH-EMS must approve, in advance, replacements for Key staff members.

Response Section VI: Proposed Work Plan (Response to Requirements)

Response Section VI should contain the following information about the respondent's approach to meeting our goal:

1) Describe the proposed ePCR solution. Be sure to include a description of distinct solution modules and communicate whether specific modules comprise a "base system" and/or

whether other modules are optional "add-ons." Describe cost implications in this section as well as in the Cost Proposal.

2) Complete the response to the Business Specifications outlined in Attachment A. If the base product cannot meet a particular specification, an alternative can be proposed as long as any implications, such as cost, are included.
3) Complete the response to the Hosting Specification Questionnaire and Checklist outlined in Attachment B.
4) Describe the Technical Architecture of your solution.
5) Describe your plan for maintaining multiple environments, i.e., Development, Test and Production including process for moving changes from one to the other.
6) Describe you plan for maintaining the security and integrity of the ePCR data.
7) Describe any additional features, not specifically mentioned here in this RFP, that the vendor's software may have to make it more attractive.

Response Section VII: Training

Response Section VII of the proposal should contain a description of all the professional development that is offered by the provider. Please complete this section by responding to the following questions in terms of Technical and User Training:

1) Please list each of the training opportunities that your company can provide. This list should contain the title of the course and a description of the offering.
2) Please indicate which of your training offerings are for technical training of the administration and which are for management and maintenance of the ePCR system.
3) Please explain how your training offerings will allow HEALTH-EMS to provide training to all levels of users.
4) Please indicate which of your offerings are taught to train students to be trainers of others. (Train-the-trainer model)
5) Please explain how you keep your training offerings up-to-date, continually meeting the needs of your users as changes in your software occur.
6) Please indicate which training offerings your company would recommend for successful implementation of the Rhode Island ePCR system.

Response Section VIII: Cost Proposal

Response Section VIII of the proposal should include pricing for the Rhode Island ePCR system as well as the pricing for continued maintenance of the software for at least 5 years.

Vendors must submit pricing information using the following format. For all Activities except the optional extended warranty/support period, the vendor's price quotes must be fixed price and include **all** expenses. **Cost proposals must be submitted separately from main proposal.**

Cost Proposal Form

Item	Cost	Delivery Date
Base System (Software)		
Billing for ASP model[1]		
Add-on Modules or Middleware Solutions (Optional)		
Rhode Island-specific Customization[2]		
Rhode Island-specific Configuration [2]		
Cost for developing Interfaces		
Training		
Miscellaneous Items (include detailed description of item)		
Total Fixed Cost[3]		

Hourly Rate for Change Orders		
Annual Support Maintenance & Upgrade Fees		

Response Section IX: Exceptions

If the contractor should choose not to address a certain Activity, Deliverable or Condition, the vendor's proposal must clearly explain why and what the vendor proposes as an alternative. These exceptions and explanations for them must be listed in Response Section IX: Exceptions.

Response Section X: Acceptance of RFP Section 3 and RFP Section 4 Conditions

Please provide a statement outlining your general acceptance of conditions outlined in RFP Conditions listed under RFP Section 3: General Provisions General Conditions, RFP Section 4: Management Structure and General Information and Attachment C, Standard State Contract Provisions. All items must be accepted or noted in Response Section IX: Exceptions.

6. Proposal Evaluation

The purpose of this phase is to determine if each proposal is sufficiently responsive to the RFP to permit a complete evaluation of the individual/organization and experience. Proposals must comply with the

1. For ASP models, the Quote shall provide yearly licensing for at least five (5) years and provide a maximum increase for any yearly licensing after the fifth year. The Quote shall indicate clearly any concurrent user or per seat licensing limitations.

2. In this RFQ "customization" is used to denote modifications to the application requiring changes to the software. "Configuration" denotes modifications to existing functionality made using standard system settings.

Travel and living costs are not billable to the State of Rhode Island.

instructions to bidders contained in Section 5: Proposal Requirements. Failure to comply with the instructions shall deem the proposal non-responsive and subject to rejection without further consideration. HEALTH-EMS reserves the right to waive irregularities.

6.1 Minimum Requirements
Minimum requirements for a proposal to be given consideration are:

1. The proposal must have been received before the closing of acceptance of proposals and in the number and form of copies specified.

2. The proposal must contain the following items in the following order:

    - Response Section I: Transmittal Letter and Rhode Island Tax Certificate and Insurance Certificate
    - Response Section II: General Background and Qualifications
    - Response Section III: Ability to Implement the Solution (Response to Requirements)
    - Response Section IV: References
    - Response Section V: Staffing
    - Response Section VI: Proposed Work Plan
    - Response Section VII: Training
    - Response Section VIII: Cost Proposal (submitted separately)
    - Response Section IX: Exceptions
    - Response Section X: Acceptance of RFP Section 3 and RFP Section 4 Conditions

The State of Rhode Island is interested in bidders with proven experience in implementing and hosting an enterprise Electronic Patient Care Reporting (ePCR) system.

6.2 Finalists Presentations

As part of the evaluation of proposals, HEALTH-EMS will require the finalists to make a presentation based on their solution. On site presentations will be in Providence, Rhode Island at the HEALTH-EMS offices. There will be no cost to HEALTH-EMS for these presentations. This demonstration would be expected to be in person. Presentations will include a demo of pre-defined scenarios in order to enable the selection committee to compare the proposed vendor solutions.

6.3 Final SelectionHEALTH-EMS reserves the right to accept or reject any or all proposals. Upon completion of the evaluation process, the HEALTH-EMS ePCR Project Team will select one bidder based on the evaluation findings and other criteria deemed relevant for ensuring that the decision made is in the best interest of the HEALTH-EMS. The selected contractor will be requested to enter into negotiation with the State of Rhode Island on contract specifications, including detailed work plans, deliverables and timetables.

In the event HEALTH-EMS is successful in negotiating with the bidder, HEALTH-EMS will issue a notice of award. In the event HEALTH-EMS is not successful in negotiating a contract with a selected bidder, HEALTH-EMS reserves the option of negotiating with another bidder.

Any contract negotiated must undergo review and signature according to statute and policy.

6.4 Scoring Information

A HEALTH-EMS review team will evaluate proposals based on the criteria listed below.

Area	Percentage Weighting
A. Satisfaction of Functional Requirements Preference will be given to proposals that include a clear, detailed and sound technical approach that fits Rhode Island's EMS incident reporting needs. The proposal should outline the respondent's ability to meet all the Business and Hosting specifications outlined in Attachments A & B. Explanations of warranties and post-installation testing will be considered in this area. Preference will be given to proposals that offer the easiest and most efficient means of data entry; the broadest range of reporting capabilities; the most efficient and intuitive interface capability with other electronic applications such as EMS billing and incident reporting software; and the most user-friendly methods to maintain lists and other service or state-specific functions. Finalist Showcase Presentations, possible hands-on evaluation and the vendor's record of average down time will be considered under this section.	50%
B. Training and Technical Support Preference will be given to proposals that offer proven professional training on the use and ongoing administration of ePRC System. Proposals should outline the provider's ability to meet all of the training specifications in Section 2.3.1.5 of this RFP as described in Response Section VII.	20%
C. Vendor's Experience and Qualifications Preference will be given to respondents with a proven reputation for developing similar applications. Strong consideration will be given to current and past customers' satisfaction, vendor's responsiveness and a demonstrated ability to install systems in a prompt, orderly and straightforward manner.	15 %
D. Cost	15%

A Selection Committee will evaluate submitted proposals on the basis of the above criteria items. Consultant Teams may be invited to appear before the Committee for in-person presentations. The Committee will then make a qualifications based recommendation for final selection to the Rhode Island State Purchasing Agent, or her designee, who will make the final award decision.

Notwithstanding the above, the State reserves the right not to award this contract or to award on the basis of cost alone, to accept or reject any or all responses, and to award in its best interest.

Responses found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not considered further. The State reserves the right to reject any or all responses submitted and to waive any informalities in any vendor's submission

Attachment A – HEALTH-EMS Business Specifications

The **State of Rhode Island** desires to implement an Electronic Patient Care Reporting (ePCR) system. The reporting tool should also be easy for non-technical users to develop reports. The solution must also have robust import/export capabilities. The technical criteria for the successful proposal will be based on the below specifications.

Please note that the MS Word copy of this RFP is available by emailing your request to Sam.Adams@health.ri.gov. We suggest you use this file to build your response template for this section. The State will evaluate proposals based on the ability for the proposed solution to meet the most valued of the business specifications outlined in the attachment.

High Level Questions	Yes/No
1. Is the proposed solution a web-enabled system?	Y N
2. Does the proposed solution require client software installation on the User's PC?	Y N
3. Is the proposed solution browser independent?	Y N

DETAIL SOLUTION FEATURES – HIGH VALUE	
Description of EMS Business Specifications	**Can your base product meet this specification? If not, propose an alternative (if possible). Include implications such as cost.**
C.1 Data Capture Requirements	
The application User Interface (UI) shall conform to industry-standard best practices for usability via a user friendly, browser-based data entry interface.	
2. During data entry, users should have the ability to exit and save a partial record without completion and return to finish entry at a later time.	
3. When a partial report is submitted, the report can be accessed by the provider (EMT) and/or others with permission for validation, update and approval.	
4. Application should have a search function to search by multiple record identifiers.	
5. The system should incorporate industry standards such as NEMSIS.	
6. The data capture solution must validate data at data entry and report a user-friendly error message if incorrect.	
7. Data must be securely transmitted between the local input device and the repository in a manner that prohibits unauthorized interception or viewing and complies with all federal HIPAA and State of Rhode Island information security requirements.	
8. Provide for a streamlined data capture process that minimizes keystrokes.	
9. Free- text ("Comment") boxes should be available where appropriate.	

10. Data capture solution assigns unique numbers following the NHSTA uniform pre-hospital dataset. The unique identifiers shall include the following; Incident Number, EMS Unit Response Number, Patient Care Report Number. The unique identifier for the PCR shall have at least three (3) characters in it.	
11. The format shall follow an intuitive flow for data entry and provide features such as highlighting of required fields, table driven drop down lists, pre-populated fields, and capturing system dates.	
12. The list of allowable values for each data element should be presented in a consistent and intuitive order (alphabetically or most common response first). The list of allowable values shall only be those allowed by NEMSIS or determined necessary by State of Rhode Island.	
13. The system should be capable of being pre-populated with Ambulance Service information, Ambulance Service personnel, pick up and drop off facilities, etc by the System Administrator.	
14. The system shall provide a pre-identified, service-specified scroll-down list of personnel.	
15. The system shall provide a pre-identified, Ambulance Service-specified scroll-down list of facilities for both pick-up and destination. Space will be provided to capture non-Ambulance Service personnel (observers, personnel borrowed from other Ambulance Services, etc.) in addition.	
16. As part of the base system cost, provide for multiple data capture solutions including fixed and mobile locations. System must support the use of either live (real-time) transmission of data or the ability to transmit it later. The ePCR system shall provide a web based portal for near real-time importing and exporting capability to NEMSIS, FARS, CODES, PHEMS, or other key systems utilizing XML standards for data sharing.	
17. The system must not allow a record to be closed until all of the following data elements are completed: the incident name and date, time of dispatch; the responding agency's name; the disposition of the incident; and the time of termination of the call, PCR number, type of service requested, primary role of the unit, EMS Unit call sign, response mode to scene, and unit back in service date/time. HEALTH EMS shall review these requirements periodically and make changes as necessary based on NHTSA/NEMSIS standards.	
18. The system shall allow for multiple sets of "closed call" rules depending on the nature and disposition of the call. Examples include: cancelled calls, medical transports (convalescent), 911 calls, specialty care transports, HAZMAT, rescue, standby. The system shall also allow for state- and service-specific closed call rules. These rules will specify data elements that are desired when obtainable but are not required. The user shall be allowed to close the record without completing these fields, but the system must alert the user to missing information and provide links to the relevant screens before the record is closed. Additional closed call	

rules should include: 1) if patient contact (defining Pt Contact as Disposition is NOT Cancelled or No Patient Found) is made then the following must be documented with a valid value: Age, Age Units, DOB, Race, Ethnicity, Provider Primary Impression(s), Primary Symptom, etc. 2) if Provider Impressions contains "Arrest" then the Cardiac Arrest Elements must be documented with a valid value. 3) if Provider Impression = Traumatic Injury, then Cause of Injury must contain a valid value. Etc.	
19. The system shall assign a confidence or validation percentage at the conclusion of the report.	
20. The system shall allow the user to start from any screen and move freely through the incident report.	
21. The system must provide an audit trail for all submissions, access, faxing and printing Incident reports as required by HIPAA.	
22. The system shall connect multiple incident reports created by multiple agencies for a single incident in a manner that makes sense to the user.	
23. The system shall allow for multiple patients for a single incident and identify them with variations to the Patient Care Report Number (E01_01). This Incident Number (E02_02) shall remain the same for all ambulance units within the EMS agency and if possible between agencies. The EMS Unit Response Number (E02_03) shall remain the same for an incident with multiple patients.). The system should copy identical data for each report (incident location, time, etc.) to each new record.	
24. The system shall provide an optional, automated narrative feature that incorporates information from other parts of the report. The system shall allow the EMS agency to inactivate the auto-narrative if desired.	
25. The system should calculate field values whenever possible, i.e., the Glasgow Coma Score and Revised Trauma Score.	
26. Maintain history of previous incidents and auto-populate pertinent fields when the agency responds subsequent times to the same location or patient.	
C.2 Data Storage and Exchange Requirements	
27. Utilize XML for exchanges between the ePCR solution and other systems.	
28. Share identifiable incident report information with medical facilities upon completion of report through data upload, print capability or automated fax.	
29. Share non-identifiable data between HEALTH-EMS and other agencies as applicable.	
30. The system shall be capable of submitting all data elements noted as "National Elements" to NEMSIS. The system shall allow a report to be created at the state and agency level to identify records that do not meet the criteria for export. In this manner that agency or state can edit the applicable records.	
31. Users with permissions will be able to download ePCR data **securely** at any time in a text file or spreadsheet format.	

32. Provide interface capability to current **versions** of electronic billing, QA/QI, and incident reporting systems in use by Rhode Island EMS agencies.	
33. Provide an interface with National Fire Incident Reporting System (NFIRS).	
34. The system should be flexible enough to accommodate other interfaces in the future. All interfaces need to be defined and tested before finalization.	
C.3 Reporting and Data Analysis Requirements	
35. Allow standard reports to be run by specific users based on user role.	
36. Allow specified users/administrators with appropriate permissions the ability to create ad-hoc reports.	
37. Allow users with permissions to download ePCR data **securely** at any time in a text file or spreadsheet format.	
38. Provide a robust solution for analysis and reporting that allows for easy and timely access and manipulation of data without affecting system performance.	
39. Provide ability to search any field or a combination of fields in the incident report such as date, location and chief complaint.	
40. Provide analysis tools to authorized users to create and save queries and ad hoc reports from the data repository.	
41. Allow users with permissions to query the extent to which users are meeting the prescribed standards for completing a report (timely data entry, compliance with closed call rules, etc.)	
42. Provide web-based analysis tools for ad-hoc and pre-determined reports.	
43. Provide reports to compare accident rates/accident history for safety concerns.	
44. Provide reports to compare incident history and rates of medical complaints/symptoms for epidemiological concerns.	
45. Provide ability to report on patient history by location or name.	
46. Generate reports to include utilization of resources, skill tracking and service hour utilization.	
1. Provide ability to have automated reports sent back to EMS agencies submitting via 3rd party software to the Rhode Island system related to the quality of data submitted (submission report).	
C.4 General Requirements	
48. The system shall provide a mechanism for tracking report status through approval and completion.	
49. The system shall provide service administrators with the capability to review and edit incident reports prior to submission.	
50. The system will be pre-populated with information about the Ambulance Services, Ambulance Service personnel, equipment, etc. The system will include a means to import data that is available in an electronic format, such as the HEALTH-EMS electronic licensing system ("License 2000").	
51. An Ambulance Service administrator shall be able to	

update Ambulance Service Personnel information. Such updates should trigger a notification to HEALTH-EMS.	
52. An Ambulance Service administrator shall be able to maintain security and access levels for only their service.	
53. A user with multiple service affiliations should be able to enter a single User ID and password and select the relevant service affiliation from a drop-down list.	
54. Provide ASP hosting services for the ePCR system, including maintenance and upgrades of software as they come available. Provide 24/7/365 Disaster Protection and Recovery for ASP and Web hosted ePCR solution. This 24/7/365 disaster protection and recovery capability shall meet national standards for Continuity of Operations (COOP) and Continuity of Government (COG) planning as it relates to data system transmission, storage, protection and recovery.	
55. Provide ability to add or deactivate data elements and variables (such as procedures and medications) within 24 hours of request by authorized users.	
56. The solution shall have a minimum of 99.99% availability for event entry. Please document average, minimum and peak availability levels and response times. Please document how each of these is calculated and what is included, i.e. unplanned outages, planned outages, etc.	
57. Provide a method of backup and recovery of software and data.	
58. Provide ability for ad hoc reporting.	
59. Provide ability to print reports to a local or network printer.	
60. Provide a consistent look and feel across the product to assist in the user's learning and ongoing system use thereby improving productivity. Provide a consistent icon appearance for common functions and include user-friendly features such as pull-down menus; point and click operation; scroll bar; scrollable list boxes; and comment/text boxes.	
61. Provide the ability for the user to return to the previous screen within a menu or a previous menu.	
62. Provide popup windows on data entry screens that display field values and permit selection of field values based upon cursor location.	
63. Allow the user to toggle between the active application and other applications currently running.	
64. Provide online error messages and corrective actions needed that make sense to the user.	
65. Provide basic integration with desktop applications, including support of "cut-and-paste" capabilities between desktop applications.	
66. Provide the ability to download to spreadsheet or database applications via commonly accepted formats such as .csv files.	
67. Allow for the efficient implementation of system upgrades and new releases: maintenance for scheduled implementations of point releases or major upgrades shall be done with minimal down time and no loss of data.	

68. Provide a means for HEALTH-EMS to 'test' a new version in the Test environment prior to upgrading the Production environment.	
69. Allow for application upgrades and downgrades while preserving the integrity of the data that has been entered into the database.	
C.5 Training, Documentation, and Support	
70. Provide online help and search within the application.	
71. Provide necessary tools for training users who will implement the 'Train-the-Trainer' model.	
72. Provide application support including but not limited to phone and email. The quote shall state the maximum turnaround time for addressing and resolving all reported support issues.	
73. Provide hard copies and digital copies of user's manuals and on-line help	
74. Provide documentation related to upgrades in a clear format and understanding with screen shots and instructions for use which will allow for distribution to the user community.	
75. Provide a separate but identical web based testing and training system that will be in place prior to implementing the live system and will remain functional after the system is active. Data entered in this system will not affect the live data.	
C.6 Technical Requirements	
76. The system should be browser independent. It should be capable of functioning on all common modern browsers.	
77. No client software installation should be required.	
78. **All data must** be available to HEALTH-EMS on demand in a standard usable format. Ambulance Service-specific data must be available to individual Services on demand in a standard usable format.	
79. The criteria for defining and terminating the acceptance testing phase and switching to active production, specifically with regard to warranties and service contracts, shall be clearly defined and understood by all parties at the time the contract is signed.	
80. Separate environments shall be maintained for at least Development, Test, and Production.	
C.7 Security and System Integrity	
81. A User Account and Password will be required to enter, update and report on the data.	
82. Permissions to view, enter, update data, run reports, etc. will be granted based on roles.	
83. The system shall provide administrative functions for user setup, role definition, security profile maintenance, etc. to be done by HEALTH-EMS ePCR administrators. HEALTH-EMS should be able to delegate administrative functions to local Ambulance Service administrators. The system must allow an Ambulance Service administrator to update users and permissions for only users from their Ambulance Service.	
84. Only users with appropriate permissions may see or	

securely download data from the system.	
85. The solution shall meet all applicable State and Department security requirements before going live in production mode. Explanation of current security systems is required and any certificates regarding security by the system or hosted environment shall be provided.	
86. The solution shall comply with all applicable Rhode Island General Laws to assure protection and security of personal information, including protection from identity theft.	
87. The selected vendor, their application, and data stored/transmitted by the application shall comply with all applicable HIPAA regulations for security and privacy.	
88. The solution shall support administration of permissions/privileges by group.	
89. Segment, isolate, and secure Rhode Island data and ensure it is not compromised.	
90. Provide the State with a comprehensive security plan and procedures, including but not limited to access controls, segregation of duties, and change controls. The State must approve the security plan as part of the implementation phase, and reserves the right to perform security checks.	
91. In the event of natural and unnatural disasters, including but not limited to hacking and acts of terrorism, a system will be in place for disaster recovery and business continuity. The bidder shall present to the State a disaster recovery and business continuity plan that must be approved as part of the implementation phase.	
92. Data must be securely transmitted between the local input device and the repository in a manner that prohibits unauthorized interception or viewing and complies with all federal HIPAA and State of Rhode Island information security requirements. Describe protocol used to protect data traveling over the internet between the ePCR system and its users.	
93. The system shall log off a user after a specified period of inactivity.	
94. Provide an advanced secure mechanism, such as two-factor authentication, that allows authorized users to access the system in a timely and efficient manner.	
95. Single password: Allow for the establishment of passwords, such that a user only has to log on once to access all modules for which he/she is authorized to access.	
96. System should follow best practices in establishing requirements for Password strength, length, expiration, re-use, lockout, etc. Passwords must adhere to State of Rhode Island Password Policy.	
97. Password Mask: Mask password entry so that passwords cannot be viewed while being entered.	
98. Mass Password Expiration: Provide the ability to enforce the changing of all passwords upon demand.	
99. Reminder to Change Password: Provide prompting to modify a password at least fifteen (15) days prior to expiration.	

100. Provide a user whose password has expired with a final warning and one more login attempt to change their password.	
101. Password reset: Allow security coordinators to reset passwords without knowing the existing password.	
102. Multiple Logons: Provide the ability to limit logon of a user ID to one workstation at a time. When such functionality is enforced, provide a message that the user ID is already in use if a user attempts to log on to a second workstation.	
103. Menu restrictions: Limit the display or view on system menus where the user does not have the proper privileges or rights to display.	
104. The solution must provide data integrity, validation and verification. It must ensure the integrity of the data from the time it leaves the user's entry point until it is recorded in the database, as well as when the information is provided for reporting and analysis.	
105. System Documentation should include technical overview and specifications, software configuration, user documentation, data model diagram, training documentation and manuals/test plans and change control process. This documentation shall make clear which errors can be fixed by the user or local administrator and those that would require the vendor's expertise.	
106. Testing shall include planning, test scenarios and script development, data and system preparation for testing, execution of testing and support of HEALTH-EMS and Ambulance Service interfaces during the acceptance testing.	

Important Features	
Description of EMS Business Specifications	**Can your base product meet this specification? If not, propose an alternative (if possible). Include implications such as cost.**
107. Provide a data acquisition capability for medical recording devices such as cardiac monitors, saturation oxygenation, endtidal carbon dioxide, etc.	
108. Utilize a standard list of unique names for roads – use NEMA standards.	
109. Provide an interface to Computer Aided Dispatch initially from 911 call centers and expanding to other PSAPs (Public Safety Answering Points) and dispatch centers.	
110. The solution shall share identifiable and non-identifiable data with other systems in real time or near real time.	
111. System shall have the capability to export and import incident reports between Rhode Island's ePCR and other states' NEMSIS-compliant systems with a single data entry (i.e., a Rhode Island ambulance transports a patient to a Massachusetts hospital, a Massachusetts ambulance transports a patient to a Rhode Island hospital, a Massachusetts ambulance picks up a	

patient in Rhode Island but transports to a Massachusetts hospital).	
112. Provide document and digital photo imaging storage capability.	
113. Provide online documentation.	
114. Provide the ability to produce charts and graphs.	
115. Provide map-based analysis / GIS mapping function / GIS integrated with accident or epidemiological data – ability to click on an interactive map to identify accident or other types of hot spots.	
116. Provide aggregate information directly to interested organizations via download from web.	

Desirable Features

Description of EMS Business Specifications	**Can your base product meet this specification? If not, propose an alternative (if possible). Include implications such as cost.**
117. If more than one service responds to a single incident, the system should provide a logical method to link the incident numbers.	
118. Integrate GPS with data capture process where technology is available.	
119. Provide a GIS-based option to allow collection of state plane coordinates and nodal reference points to augment or supplement GPS.	
120. Support data entry using bar-coded drivers' license, mass casualty or other patient bracelet tag.	
121. Provide for Personal Digital Assistant (PDA) Field data entry meeting real time requirements per State of Rhode Island Policy.	

Optional Subsystems

Description of EMS Business Specifications	**Can your base product meet this specification? If not, propose an alternative (if possible). Include implications such as cost.**
1. If more than one service responds to a single incident, the system should provide a logical method to link the incident numbers.	
2. Patient Tracking System capable of tracking patients and their hospital transport destinations, both during a disaster response and as part of day-to-day EMS operations.	
3. Trauma Registry capable of tracking and developing reports on patients who were involved in any type of trauma based on care provided and patient outcomes.	
4. Stroke Registry capable of tracking and developing reports on patients who experience some degree of cerebrovascular accident,	

their care provided, and patient outcome.	
5. Hospital Data Interface that utilized EMS data to assist receiving facilities in developing a more robust patient care plan.	

Attachment B – Hosting Specifications Checklist

Complete the Hosting Specification Questionnaire and Compliance Checklist

The State is interested in a contractor hosted environment. The contractor's proposal should address each of the following areas.

Responses should include the numbering scheme for each area. If response does not follow numbering schema, evaluators may issue scores of zero if they are unable to find the response to a particular area. If the response does not address a specific area, the score will include a zero for the skipped area. Please note the MS Word copy of this RFP is available by emailing your request to questions@purchasing.ri.gov. We suggest you use this file to build your response template for this section.

Attachment D: Hosting Specification Questionnaire	
D.1.	DESCRIBE THE PROPOSED PHYSICAL ENVIRONMENT WHERE THE EQUIPMENT DESCRIBED IN TECHNICAL ARCHITECTURE WILL RESIDE. INCLUDE A DESCRIPTION OF THE PHYSICAL SECURITY OF THIS ENVIRONMENT. RESPONSES MUST INCLUDE THE FOLLOWING INFORMATION:
D.1.1	WHAT IS THE PHYSICAL ADDRESS OF THE HOSTING FACILITY?
D.1.2	HOW IS PHYSICAL ACCESS TO THE HOSTING AREA RESTRICTED?
D.1.3	HOW ARE ENVIRONMENTAL FACTORS SUCH AS TEMPERATURE AND HUMIDITY MONITORED?
D.1.4	DESCRIBE FIRE DETECTION AND FIRE RETARDANT SOLUTIONS.
D.1.5	DESCRIBE ADDITIONAL RELEVANT ENVIRONMENTAL FEATURES OF THE FACILITY. INCLUDE A DESCRIPTION OF POWER, HVAC, FLOOR SPACE, NETWORK CONFIGURATION AND LEVEL OF REDUNDANCY.
D.1.6	DESCRIBE THE CONTRACTOR'S EXPERIENCE WITH HOSTING APPLICATIONS SIMILAR TO THAT WHICH IS BEING ACQUIRED THROUGH THIS PROCUREMENT.
D.1.7	PROVIDE AT LEAST 3 REFERENCES OF CURRENT CUSTOMERS WITH ENTERPRISE HOSTING REQUIREMENTS SIMILAR TO THOSE OF THE STATE.
D.1.8	DESCRIBE ANY ADDITIONAL INFORMATION WHICH IS RELEVANT TO THE PROPOSED PHYSICAL ENVIRONMENT.

D.2.	PLEASE RESPOND TO THE FOLLOWING QUESTIONS ABOUT SERVICES RELATED TO SUPPORTING THE PROPOSED INFRASTRUCTURE. OUTLINE STANDARDS FOR PERFORMANCE WHICH WOULD BE PROPOSED IN A SERVICE LEVEL AGREEMENT. CONTRACTORS SHOULD ALSO DISCUSS THE MANAGEMENT TOOLS AND PROCESSES THEY WILL PROPOSE OR EMPLOY FOR ENSURING THESE REQUIREMENTS ARE MET OR EXCEEDED. PLEASE INCLUDE THE FOLLOWING INFORMATION IN THIS RESPONSE:
D.2.1	MINIMUM ACCEPTABLE REQUIREMENTS FOR SYSTEM UPTIME AND AVAILABILITY,
D.2.2	SYSTEM RESPONSIVENESS,
D.2.3	NUMBER AND EXPERTISE OF TECHNICAL SUPPORT STAFF,
D.2.4	BACK-UP SCHEDULES,
D.2.5	DESCRIPTION OF ARRANGEMENT FOR OFF SITE STORAGE OF BACKUPS (INCLUDE INFORMATION ON HOW SITE IS SECURED),
D.2.6	SOFTWARE UPDATES,
D.2.7	SYSTEM MONITORING AND MAINTENANCE,
D.2.8	RESPONSIVENESS OF TECHNICAL SUPPORT STAFF WHEN PROBLEMS ARE ENCOUNTERED (INCLUDING HELP DESK RESPONSE TIME, TIME TO ANSWER, TIME TO RESOLUTION, TIME TO ESCALATION, ETC.)
D.2.9	PROBLEM MANAGEMENT AND ESCALATION PROCEDURES,
D.2.10	TYPES AND FREQUENCY OF MANAGEMENT REPORTS PERTAINING TO THE PERFORMANCE OF THE OUTSOURCING CONTRACTOR.
D.2.11	SYSTEM LATENCY,
D.2.12	INCLUDE SAMPLE SLA AGREEMENTS THAT THE CONTRACTOR CURRENTLY HAS IN PLACE WITH OTHER CUSTOMERS
D.2.13	OTHER INFORMATION DEEMED RELEVANT BY CONTRACTOR.
D.3.	DESCRIBE ADDITIONAL VALUE ADDED SERVICES THE CONTRACTOR MIGHT PROVIDE THE STATE IN A HOSTED ENVIRONMENT. THIS MIGHT INCLUDE THE USE OF DEDICATED SERVERS, PLATFORMS SUPPORTED, AVAILABLE SOFTWARE OFFERINGS, AVAILABLE STORAGE SPACE, INFORMATION PERTAINING TO MONTHLY DATA TRANSMISSION ALLOWANCES (IF APPLICABLE), RELIABILITY AND PERFORMANCE BOOSTING EFFORTS (E.G., CACHING, MIRRORING, AND LOAD BALANCING), AND THE RANGE OF SERVICES AVAILABLE (INCLUDING APPLICATION MANAGEMENT, SYSTEM INTEGRATION, BENCHMARKING, HIGH-AVAILABILITY CONFIGURATIONS, AND DISASTER RECOVERY). IN THE COST PROPOSAL FOR THE HOSTED SOLUTION, PLEASE STIPULATE HOW THESE ARE PACKAGED AND PRICED.
D.4.	DESCRIBE IN DETAIL THE NATURE OF THE CONTRACTOR'S UNDERLYING TRANSPORT NETWORK (OR NETWORKS) TO BE EMPLOYED IN ENABLING THE SOLUTION. SUCH A DESCRIPTION SHOULD INCLUDE SIZE OF NETWORK, TRANSPORT PROTOCOL EMPLOYED, SECURITY SCHEME FOR THE NETWORK, GENERAL NETWORK TOPOLOGY, ETC.
D.5.	DESCRIBE SUPPORT THAT IS AVAILABLE FOR SSL SECURITY, DATABASE CONNECTIONS.
D.6.	PROVIDE DETAILS ABOUT THE HOURS OF OPERATION AT THE CONTRACTORS OUTSOURCING LOCATIONS.
D.7.	DESCRIBE PROCESSES FOR MONITORING THE INTEGRITY AND AVAILABILITY OF HOSTS COMPRISING THE SIREN.
D.8.	PROVIDE STAFFING NUMBERS AND EXPERTISE PER LOCATION, STRATEGY FOR NEW STAFF HIRING, AND STAFF RETENTION PROGRAMS. ARE BACKGROUND CHECKS REQUIRED FOR STAFF?

D.9.	DISCUSS YOUR APPROACH FOR ADDRESSING SECURITY RELATIVE TO NETWORK LAYER CONTROLS, PLATFORM CONTROLS AND APPLICATION CONTROLS. THE DISCUSSION SHOULD ALSO COVER THE CONTRACTOR'S SUPPORT FOR ADVANCED SECURITY TECHNOLOGIES USED AT THE FACILITY SUCH AS MANAGED FIREWALLS, ENCRYPTION, AUTHENTICATION, INTRUSION DETECTION, SITE SCANNING, SERVER HARDENING, AND THE PERFORMANCE OF SECURITY AUDITS/PENETRATION TESTS. CONTRACTORS SHOULD ALSO DESCRIBE THEIR DOCUMENTED POLICIES AND PROCEDURES FOR DEALING WITH SECURITY ISSUES ON AN ON-GOING BASIS.
D.10.	CONTRACTORS WILL PROVIDE INFORMATION REGARDING DISASTER RECOVERY STRATEGIES, PROTOTYPING AND PILOT TESTING, PERFORMANCE MONITORING AND PROBLEM RESOLUTION, KNOWLEDGE TRANSFER TO STATE EMPLOYEES AND EXIT STRATEGIES.

Hosting option - check list		**Indicate Y or N**
D.11.	Indicate understanding and willingness to agree to the following state stipulations regarding contracted hosting services:	
D.11.1	The State will have final say on who is authorized to enter the server room where the ePCR application infrastructure is located.	Y N
D.11.2	The contractor must disclose who will have access to the environment hosting the application for ePCR.	Y N
D.11.3	The state reserves the right to periodically audit the contractor application infrastructure to ensure physical and network infrastructure meets the configuration and security standards and is in adherence to relevant state policies governing ePCR. Non-intrusive network audits (basic port scans, etc.) may be done randomly, without prior notice. More intrusive network and physical audits may be conducted on site with 24 hours notice.	Y N
D.11.4	The network hosting the ePCR must be air-gapped from any other network or customer that the contractor may have. This means the ePCR application environment must use separate hosts, and separate infrastructure.	Y N
D.11.5	The contractor must keep current on host patches on hosts, including host OS patches, web servers, databases, and any other material applications.	Y N
D.11.6	The contractor must provide the state with a plan for complying with the state's password policy for the ePCR infrastructure, including minimum password length, password generation guidelines, and how often passwords are changed.	Y N
D.11.7	The contractor may be required to disclose to the state the specific configuration files for devices within the ePCR.	Y N
D.11.8	All security-related events on critical or sensitive systems must be logged and audit trails saved.	Y N
D.11.9	All security related logs will be kept online for a minimum of 1 week.	Y N
D.11.10	Daily incremental backups will be retained for at least 1 month.	Y N
D.11.11	Weekly full backups of logs will be retained for at least 1 month.	Y N
D.11.12	Monthly full backups will be retained for a minimum of 2 years.	Y N
D.11.13	Security-related events will be reported to the Department of Health CIO and state of Rhode Island CIO. Security-related events include, but are not limited to: **D.11.13.1.** Port-scan attacks **D.11.13.2.** Evidence of unauthorized access to privileged accounts **D.11.13.3.** Anomalous occurrences that are not related to specific applications on the host.	Y N

end