



Huron Consulting Group White Paper RFP Process for EDIS Software Vendors.

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White Paper Overview

This paper was designed with the intention of developing a self-help guide for hospitals in search of a new Emergency Department Information System (EDIS). This paper covers all aspects of the search—from the issue of the Request for Proposal to the final vendor selection. The paper is divided into four distinct parts. Part one is a brief introduction to the process. Part two covers each individual step in building a thorough RFP that is applicable to any vendor selling EDIS solutions. Part three describes the process of collecting and analyzing the vendor data once it is received. The fourth part covers how to narrow down the vendors and make a final selection. The following Table of Contents outlines the setup of the paper. Users can go to each section by clicking on its respective name.

Table of contents

I. Introduction	4
II. Building an RFP	4
A. Overview	4
B. Important Sections of an RFP	4
1. <i>RFP Background Information</i>	5
2. <i>Hospital Background</i>	5
3. <i>Response Requirements</i>	6
5. <i>Product Information</i>	6
C. Which sections should be stressed more than others?	9
III. Collecting and Analyzing the Data	9
A. Overview	9
B. Extract vendor responses related to features and functions	9
C. Assign Weights	10
D. Compare vendor totals	10
E. Talking with those who have already purchased the system	11
IV. Narrowing Down the Final Vendors	11
A. Structured Software Demonstrations	12
B. Scoring the Demonstrations	12
C. Selecting the final software product	13
V. Appendices	13

I. Introduction

In today's frequently changing technology environment, health care providers are continuously looking to update their operations and systems to take advantage of the most recent and cost-efficient technologies. While there are no existing regulations governing which systems a hospital is required to have or use, it is important to understand the benefits of automating Emergency Department operations. Newer Emergency Department Information Systems (EDIS) technology supports improved efficiency, better risk management, better documentation, better charge management, better compliance with new regulations and improved quality of patient care.

Given the emergency department is an integral part of the overall hospital, it is highly interdependent with the existing hospital systems. When it comes to choosing new technology to support emergency department operations, a proper assessment must be performed to assure that the hospital is receiving not only a highly functional system, but one that can co-exist and interface with the other legacy hospital systems already in place. The most common way for a hospital to approach the process of choosing a new Emergency Department system is to issue a Request For Proposal (RFP) that will address all hospital requirements and needs. This white paper examines the process of issuing such an RFP and selecting the best Emergency Department Information System (EDIS) for your hospital. Work sheets and formulas for selecting a system are included.

II. Building an RFP

A. Overview

Building an RFP can be a long and complicated process. Hospitals must decide which aspects of an EDIS are the most important and crucial in meeting their needs. The following section outlines the critical steps in building an RFP, and identifies sections that should be included along with questions that should be asked. It is important to understand that, while every hospital is set up and run in a different manner, EDIS systems are designed to accommodate most hospital Emergency Departments and to adjust to satisfy individual needs.

B. Important Sections of an RFP

The RFP should be broken down into separate and distinct sections. The need for subsections may vary, however the following core RFP outline was designed to capture the most significant information from vendors. Appendix No. 1 is an outline for an RFP Huron Consulting Group designed as a guide for hospitals. It summarizes all of the information described in this section. Huron attempted to capture all of the important elements in this sample design, and believes that this is a complete and accurate format for hospitals to use and capture critical vendor information.

1. RFP Background Information

The hospital must clearly communicate to the vendors why the RFP is being issued and what it is seeking in a new EDIS. The hospital should list any problems they expect to solve with a new system. It is helpful for the vendor to know the specific reasons why the hospital is issuing this request. Additionally, if the hospital is familiar with the vendor's software, they should indicate which portions of the vendor's product suite they are interested in purchasing. If they are only interested in one or two modules, a large portion of this RFP Outline may not be applicable. However, the vendor may use the RFP opportunity to encourage the hospital to look into other components of the software package for a more complete system.

2. Hospital Background

Every RFP should contain a detailed description of the hospital. It is important for the vendor to know and understand how the hospital's Emergency Department (ED) is organized, how it functions, peak patient volumes, the number of employees, and any other pertinent information that can vary from one hospital to the next. An overview of the hospital complete with this information, as well as a list of current hospital statistics and a brief description of the current systems environment should be included in this section of the RFP. These statistics should cover all aspects of an ED that would have an impact on how the software system will be used and how it would benefit the department. Examples of important statistics to include in the RFP are:

- ED Utilization
- Average patient load per day/year
- Average length of stay in the ED
- Number of ED beds
- Number of ED staff

Please see Appendix No. 1 for a more detailed list of ED statistics that should be included. The hospital should also provide background on the core HIS and ancillary systems that are currently implemented throughout the hospital. These systems will probably need to be interfaced with a new EDIS solution, and the vendor should be made aware of them in advance to get an understanding of the complete environment. Please see Appendix No. 6 for a Sample RFP complete with this sample hospital background information.

3. Response Requirements

This section outlines the hospital's terms for the RFP. The hospital should specify its policies in reviewing the RFP, and provide information regarding the submission process. The hospital should also identify the hospital contact person who will handle RFP questions. It is also important to include the exact day and time the RFP is due and provide format guidelines. This section is also the place for the hospital to state any obligations, restrictions, or legal policies that it intends to enforce. Much of this section is related to standard purchasing terms used by the hospital. The Purchasing Department within the hospital will be able to provide much of this information.

4. Vendor Description

Hospital decision-makers will want to receive as much information about the vendor as possible. Therefore, it is important that the vendor include all published literature and detailed product information that they have regarding their company and product offerings. It is not unusual however, for some of this information to be omitted or covered at only a very high level. In this case, specific business questions should be asked to support due diligence research on the vendor. These questions should address the vendor as a company, and should request any corporate information the vendor can provide. This information can include management profiles, date founded, number of clients, etc. Additionally, the hospital may require the vendor to provide financial information in the form of audited financial statements. The vendor's history with litigation must also be exposed. The legal history of a company can say a lot about problems their clients may experience in the future. This section is also an appropriate place to ask the vendor to supply a list of client references for the hospital to contact, including those with failed implementations or de-installed software.

5. Product Information

The final section of the RFP will include the questions about the software product itself. This is the most important RFP section and needs to be as comprehensive as possible. The first portion covers specific software information. This information should include questions about the type of network on which the product can run, legacy systems with which the software is compatible, and other technical characteristics of the software. These detailed characteristics should include:

- The maximum number of users the system can support
- The compatible relational database software

- Support of biometrics for security authentication
- Support of voice recognition in lieu of keyboard or mouse
- Capture of charges based on patient documentation
- Support of touch screen in lieu of keyboard or mouse
- Support of electronic signatures

Please see Appendix No.2 - Functionality Matrix for a more detailed list of important software characteristics. Appendix No. 3 - Sample Interface Summary sheet is another related tool. This is a useful form that can be filled out and distributed to the vendor. When completed by the vendor, it will help the hospital understand how easily the new EDIS product will integrate with the legacy systems already in place. The hospital will need to indicate the various systems operating in each functional area.

The next portion of the product information section covers hardware requirements for the EDIS solution. Specific hardware characteristics that are necessary to operate the software should be addressed. The hospital should expect the vendor to clearly define the quantity, size and speed of all hardware required to run an efficient system in the hospital setting defined in the RFP. Requirements should include recommended desktops, servers, and printers.

Another integral factor in choosing the best EDIS product is the implementation process. In this portion of the Product Information section, the hospital must ask the right questions to determine the adequacy of the vendor's implementation approach. Analysis of a vendor's implementation approach covers such topics as project management, change management, training and knowledge transfer. Hospital needs in these areas vary based on prior and existing technology used. If a vendor has a change management approach it should be addressed in this section. Details regarding the cultural change that may need to occur to maximize the value of the investment should be included in this portion as well. Important implementation questions to ask:

- What are the typical implementation steps and timeline?
- What do the training schedules look like?
- How is the implementation managed?
- What is the expectation for hospital staff in managing the implementation?
- What is the price of the entire implementation process?
- What post-implementation support will be available?

Training is also a critical part of the implementation process. Training should provide hospital staff with the skills that are required to use an EDIS. Poor

training can undermine even the best software product and doom the implementation to failure. The hospital should inquire about the vendor's initial and ongoing training programs, including the training venue and literature used. (Onsite training versus vendor site training can save travel expenses.) Related to training is the impact the new system will have on patient throughput. It is not uncommon for a new system to cause slow-downs in the time it takes to process ED patients when it is first implemented. As the users become more familiar with the software, the hospital will see efficiency gains over the current processes. The hospital should ask the vendor what to expect regarding how quickly staff will be proficient on the system and the anticipated impact on operations when the system goes live.

The next portion of the RFP focuses on product support. While a lot of EDIS software has similar functions, the packages may vary greatly in the product support offered by the vendor. This may be a differentiating factor when selecting the best vendor. The hospital needs to get a detailed description of the support the vendor offers after the system has been implemented. Software problems may cause downtime, which in an ED may impact patient care. The hospital should research, prior to purchase, how often downtime occurs and how long it can last. Lastly, the hospital should be sure to ask the vendor for a maintenance agreement.

Security is such a major issue within hospital systems these days that a separate portion of the RFP should be devoted to it. The government is expanding the requirements for health care providers and insurers to protect patient information. These requirements fall under HIPAA (Health Insurance Portability and Accountability Act), and it is important to receive a guarantee from the vendor that their product is capable of complying with this act. The primary role of security within an EDIS system is to restrict access to patient records. The secondary role of security is to maintain accountability for all activity that occurs within the system. Each user should have an individual user name and password. The system should incorporate functionality that limits the information each user can access and the activities they can perform. The system should also maintain audit trails of who performed each activity and what records were accessed.

The final portion of the Product Information section of the RFP should inquire about the cost of the system. The hospital should be sure to ask the vendor to provide an outline of all system cost components that are included in the purchase price, as well as costs that may be additional or charged on an ongoing basis. It is also important that the hospital understand the factors that go into how

a vendor prices their product. A model used by some vendors is to price the software by the number of named users, while others charge by concurrent users. Another price model is based on ED patient volumes or bed counts. Other questions for the vendor related to cost are: the typical payment terms offered, and the timing of payments relative to delivery and implementation of the software.

C. Which sections should be stressed more than others?

While each component of an RFP is significant in gaining information from potential vendors, when it comes to analyzing the actual proposals and deciding which are the best fit for the hospital, some sections should be considered more important than others. Generally, software features and costs will play the largest role in the decision-making process. Hospitals can readily eliminate software options that do not meet their needs or exceed their budget. A detailed explanation of how to collect and analyze the data will be given in the next section of this paper.

III. Collecting and Analyzing the Data

A. Overview

As mentioned in the previous section outlining the response requirements, the vendor will be given a date and time in which to complete the RFP. Once received, the hospital will need to have a process or plan for evaluating the responses. This process can be more easily managed if the hospital follows a structured approach to analyzing the vendor responses. The structured process Huron recommends is summarized in the following steps:

- Extract vendor responses related to features and functions
- Rate and score vendor responses
- Assign weights to scores (optional)
- Compare vendor total scores
- Check vendor references
- Invite selected vendors to demonstrate software

B. Extract vendor responses related to features and functions

Included in Appendix No. 2 is a detailed spreadsheet titled “Functionality Matrix”. This spreadsheet lists functionality requirements that a typical hospital would have for an EDIS solution. It relates directly to many of the questions outlined in

the Appendix No. 1 – RFP Outline. The vendor should be instructed to complete both the RFP document and the accompanying matrix.

While the RFP is designed to allow the vendor to answer specific questions in free form, the Functionality Matrix is designed to force the vendor to pick only one of six possible responses. By choosing a response code number between zero and five, the vendor clarifies and admits to the vendor's capabilities in meeting the hospital's needs and requirements. The hospital can then use the numerical values within the Functionality Matrix to generate a score for the vendor as a whole. This scoring process is illustrated in Appendix No. 4 – Weighting Summary. Step 1 shows the collection of raw data totals.

C. Assign Weights

Each hospital may handle the response analysis differently. One way to approach this process is to consider assigning more weight to responses in specific areas. In this case, each category or section is given a weight factor that would either increase or decrease the significance of certain requirements. This optional process (illustrated in Appendix No. 4 – Weighting Summary- Step 2) assigns weighting factors to different sections of the Functionality Matrix. It will be necessary for the hospital to determine which aspects of an EDIS are the most important to their organization. One hospital may want to stratify vendors based on technical requirements, while another may be more interested in nursing and physician documentation functions. The level of weight assigned can be varied as well. If there are two sections of top priority, one may be weighted with a factor of two and the other a factor of three. Appendix No. 4 – Weighting Summary – Step 2 contains discretionary assumptions related to functional areas of importance. It can be adjusted to fit each hospital's needs.

D. Compare vendor totals

Appendix No. 4 – Weighting Summary – Step 3 illustrates a summary table for three vendors. The scores for each vendor have been consolidated for comparison in a single table. Although the data in this illustration does not represent real vendors, the score differences are not unusual. Many times one vendor is very strong in two or three areas and a competing vendor is just as strong in two or three different areas. Understanding which areas are more important to an individual hospital and using the weighting factors described in the previous section can help a hospital quantify which EDIS solution is the best fit for their organization.

E. Talking with those who have already purchased the system

Contacting references should be an integral part of any software selection process where a large investment is going to be made in a product that is already on the market. The client reference section in the RFP should include a list of hospitals that have purchased the full system functionality with Tracking, Physician Documentation, Nurse Documentation, and Risk Management capabilities. It is also important to capture the length of time each hospital has had the system implemented and operational. It is important to contact these hospitals and get feedback from the prime users of the system. While hospital emergency department administrators and nurse coordinators will probably give you good feedback, it is also a good idea to contact other ED staff (nurses, physicians, etc.) and the IT Department to get their opinions on using the system on an everyday basis. It is possible that hospital administration will have a different perspective than the hospital's staff. There are administrative benefits of the software that an ED nurse may not fully appreciate. Nurses and physicians are the best source of feedback on how the system affects the flow and quality of patient care. It is also a good idea to contact the person who had the largest involvement in the implementation process from start to finish. This person should be a good resource to gain information regarding the vendor's promises in product delivery.

A reference form should be created with a list of questions that a potential user of the EDIS system would want to ask an existing system user. A standard form can be used for each reference, and therefore a scoring factor can be applied to that questionnaire as well. Capturing feedback from all users of an EDIS is extremely important and this feedback may greatly impact the decision process.

To arrive at the final score, the weight of this feedback form may be added to the weight from the functionality matrix.

IV. Narrowing Down the Final Vendors

Once the scores have been compiled and it becomes more apparent which vendors appear to be the best options for the hospital to explore further, the next step is to invite the vendors to demonstrate their products. While the analysis of RFP responses is adequate for determining which software deserves serious consideration, no software purchase should be considered without a structured vendor software demonstration. Some vendors have been known to be less than fully truthful in RFP responses. The demonstration is where the vendor is forced to prove how their software supports all of their answers included in the RFP. In order to minimize the impact of software demonstrations on ED staff, we recommend that no more than three vendors be invited

to demonstrate their software. If two vendors emerge as clear leaders from the RFP exercise, it may be appropriate to limit the demonstration invites to only two vendors. The objective is to make sure the best software solutions have been evaluated without wasting staff time in multiple demonstrations of inferior products. The approach we recommend to vendor demonstrations covers the following steps:

- Structured software demonstrations
- Scoring the demonstrations
- Selecting a final software product

A. Structured Software Demonstrations

The hospital should contact each of the finalist vendors and request a demonstration of their software system. This demonstration may be available on-site at the requesting hospital, at a neighboring hospital that has the software installed, or at the vendor site. It is also possible to do the demonstrations remotely with some of the web-based technology available today. It is also important to request that the vendor demonstration is performed with the vendor's system coordinators as well as their clinical peers if available.

In order to "level the playing field" among vendors, it is suggested that the hospital provide an outline to the vendor of how they want the demonstration to be organized. This will help eliminate confusion among the users as they make notes and score what they see demonstrated. The outline requests that all vendors follow the same format and use the same amount of time for the session. Format relates primarily to the order that features/functions are demonstrated in. A suggested format is to have the software vendor start with demonstrating the Triage function, before getting into Patient Treatment and Discharge functions. It helps if the demonstration follows a logical flow of the patient through the ED. If the vendors perform the demonstrations in a different order, it is difficult for the viewers to remember product differences after all of the demonstrations are complete.

B. Scoring the Demonstrations

The vendor demonstration should be scored in a manner similar to the original analysis of RFP responses. Using the Functionality Matrix developed earlier, a demonstration scoring sheet can be developed. Attachment No. 5 – Vendor Demonstration Worksheet illustrates a typical user scoring form. On this form, the users would be expected to grade each of the requirements on whether the software exceeded their expectations, met their expectations or did not meet their expectations. Point values would be assigned for each answer. Much the same as the RFP response scoring process, weights could be assigned if

desired. Ultimately, all of the user score sheets would be totaled and the vendor with the highest scores would be deemed the best solution for the hospital. This process is most effective when the demonstrations are attended by a combination of administrators and users who represent all areas that will be impacted by the new system.

It is not unusual to give the vendor the score sheet in advance. Most vendors will help the users go through the score sheets at the end of the demonstration to make sure all points were covered and to remind users how specific functions were covered if they do not remember the details.

C. Selecting the final software product

After the vendor score sheets have been totaled, a final round of reference checks is typically in order. Assuming the reference checks are satisfactory, the hospital typically notifies the vendor that they are the leading candidate for the purchase of the EDIS system. The vendor at this point is considered Vendor of Choice. This opens the door to negotiation of contract terms and price. Most of the time, the vendor will need to perform some additional due diligence with the hospital to finalize implementation fees, development fees for custom interfaces, implementation planning, etc. By the time the contract is signed with the software vendor, the hospital should have a high degree of comfort with their choice of software, what it will cost and the personnel who will manage the implementation process. If at any point along the way the hospital begins to feel uncomfortable, we recommend they go back in the process described in this paper and repeat enough of the process to ensure they ultimately end up with the right solution.

V. Appendices

1. RFP Outline
2. Functionality Matrix
3. Interface Capabilities
4. Weighting Summary Spreadsheet
5. Vendor Demonstration Worksheet
6. Sample RFP

Appendix 1

RFP Outline

Section 1: Hospital Overview

1. Hospital Intent for RFP
 - a. Describe the following:
 - i. What are you looking for in a new EDIS?
 - ii. What problems are you looking to solve with an EDIS?
 - iii. Which parts of the vendor software are you looking to purchase?
2. Hospital Background
 - a. Describe the following:
 - i. Where is the hospital located?
 - ii. How many years has the hospital been open?
 - iii. What type of trauma center does the hospital run?
 - iv. Is the hospital part of a larger network?
 - b. List the following Emergency Department statistics:
 - i. Utilization
 - ii. Average patient load
 - iii. Total number of employees
 - iv. Average number of employees during the busiest shifts
 - v. Average number of employees during the slowest shifts
 - vi. Number of ED admissions per year
 - vii. The average length of stay for patients
 - viii. Number of patients admitted via ambulance
 - ix. Number of admissions via walk-in
 - x. Total number of beds in the ED
 - xi. The separate and distinct areas of the ED and the bed breakdown
 - c. Describe the current systems environment
 - i. What HIS/ADT system does the hospital currently use?
 - ii. What is the hospital's current lab system?
 - iii. What is the hospital's current pharmacy system?
 - iv. What is the hospital's current radiology system?

Section 2: Response Requirements

In order to give a fair and complete evaluation to each vendor response, *Sample Hospital* asks that each vendor completely fill out each section of the RFP. Any blank responses or deviation from the required format may result in exclusion from the selection process.

1. The Submission Process

- a. The original response, complete with signatures of company management and one extra copy, must be received by the *Sample Hospital* Purchasing Department, *Address, Telephone Number, e-mail address, by Month, Day, Year*. No extension will be given beyond this response deadline. Please be advised that *Sample Hospital* reserves the right to choose a vendor based solely on their response to this request, or based on additional information requests and interviews.
- b. Please include any detailed product information or collateral.

2. Questions Regarding the RFP

- a. Inquiries regarding this RFP must be addressed in writing or by telephone to:

Name:

Position:

Address:

Telephone Number:

E-mail Address:

Business Hours:

- b. RFP Issue Date:
- c. RFP Response Due Date:

3. Vendors that are currently doing business with the institution must limit their contacts to those necessary to support the existing operations.
4. No part of this RFP should be construed to imply any obligation or commitment whatsoever on the part of *Sample Hospital*.
5. *Sample Hospital* is not responsible in any way for vendor costs incurred in responding to this RFP, out of pocket expenses related to site calls or software demonstrations, or any other time that was invested in responding to this request.

6. Format For the Response

- a. The response to this request shall be completed and sent (*electronically, by mail, etc.*)

Section 3: Vendor Description

1. Vendor Company Info
 - a. Where is your company headquartered?
 - b. When was the company established?
 - c. What form of ownership exists for your company? (Public/Private?)

- d. How has the company grown since it was founded?
 - e. Where are the vendor offices located?
 - f. Can you provide your most recent balance sheet and income statements?
 - g. Can you explain any differentiators that distinguish you over the competition?
 - h. Do you have any customers that have received insurance discounts after they installed your system with electronic documentation?
 - i. Who do you have strategic vendor partnerships with?
 - j. Has your product ever had to be de-installed?
 - (a) If so, why and at whose request?
2. Has your company ever been involved in any lawsuits?
 3. Do you have company management profiles?
 4. What is your total number of installed clients?
 5. How many of your clients use full functionality? (Full functionality is defined as Tracking, Nursing Documentation, Physician Documentation, Integrated Risk Management and Interfaces to other hospital systems.)
 6. Please complete the following table for hospitals contracted or installed in the last year.

Function	Contracted	Installed & Operating	Reference
Tracking Only			
Tracking & Nursing			
Tracking & Physician			
Tracking & Nursing & Physician			
Charge Capture			
Track & Nurs & Phys & Chg Capt.			
ADT Interface			
Lab Interface			
Other Interface			
Risk Management			

- a. Include the following information for each hospital:

- i. Name of customer
 - ii. Contact person
 - iii. Phone number
 - iv. Type of software/hardware
 - v. Date installed
 - vi. Date implemented
- b. Would an on-site visit to one of these hospitals be beneficial?

Section 4: Product Information

Software Information

1. Network information:
 - a. What type of network does your product run on?
 - b. How often does downtime take place?
 - c. How is the network backed up?
 - d. How are upgrades handled?
 - e. What type of server do we need?
 - f. Can multiple hospitals run off of one server?
 - g. Is the system web based or web enabled?
2. Compatible interfaces:
 - a. (The requesting hospital should provide a list (matrix) of all their systems and vendor should check those that are compatible or can be worked with, see Appendix 3)
 - b. What hospital systems (other than ADT) have you developed interfaces for?
 - c. Does your product use the existing hospital charge master to determine ED charges? If not, where are the charge rates maintained?
3. Software Characteristics
 - a. Does the software support the following technologies?
 - i. Charge by documentation
 - ii. Touch Screen
 - iii. Voice recognition
 - iv. Biometrics
 - v. Passive tracking
 - b. How does your system support increases in ED visits resultant in increased volumes of data?

- c. What are the maximum numbers of users and peripherals that can be supported?
- d. Describe any file size limitations that may exist.
- e. What database software is the product compatible with?
- f. What is your process for upgrades and releases of new software?
- g. What is the version number of the proposed software?
- h. Does the software support PDA usage?
- i. Can the system be used with minimal keystrokes?
- j. Can the wall display be customized?
- k. Can the software differentiate between nursing and physician services?
 - i. Is an electronic signature available for physicians?
 - ii. Do nurses and physicians have the ability to use free text or templates?
 - iii. Is the ability to view and write orders at bedside available?
- l. Can the software produce patient specific home care instructions?
 - i. In multiple languages?
- m. Can the software query data and write reports?
 - i. Can custom reports be integrated into the standard report selection menu?
- n. Can more than one user access the same patient record at the same time?
- o. Does the system have the following features?
 - i. A greeter function
 - ii. A triage function
 - iii. Ability to assign ED rooms from triage
 - iv. Ability for registration and triage to occur at the same time
 - v. Ability to bypass triage function in registration process
 - vi. Ability for registration to be done in real-time
 - vii. A quick registration function when identity is unknown
 - viii. Ability to accommodate bedside registration
 - ix. Paperless records from triage to disposition
- p. Does the system have the ability to alert the clinician of abnormal or critical lab values and results?
- q. Can each user of the system customize their screen?
- r. Is there an ambulance tracking board?

- s. Can the systems capture the time the patient is:
 - i. In the waiting room?
 - ii. In triage?
 - iii. In the treatment room?
 - iv. Waiting to be seen by a nurse?
 - v. Waiting to be seen by a physician?
 - vi. Administered medications?
 - vii. Waiting for labs and x-rays?
 - viii. Waiting for disposition?
 - ix. Waiting between bed request and bed assignment?
 - x. Waiting for removal?

- t. Does your system have the ability to automatically capture syndromic information?

- u. Does your system have a bio-terrorism surveillance feature that sends alert messages?

- v. How does your system assist in JCAHO and other regulatory compliances in the Emergency Department?

Hardware Information

- 1. Access to Hardware
 - a. Does your company provide the necessary hardware?
 - i. If not, do you supply a list of hardware requirements?
 - ii. If yes, what support comes with it?

 - b. Does the vendor make hardware recommendations for a fully implemented system?

 - c. Is a cost of hardware analysis available for a fully implemented system?

- 2. Hardware Characteristics
 - a. Please provide the recommended size and speed for ED workstations.

 - b. Please provide the recommended number and size of application, database and web servers for a hospital the size of *Sample Hospital*.

Implementation Approach

- 1. Implementation Management
 - a. Who will be responsible for managing the implementation for the vendor?

 - b. What is the history of this project manager?

- c. Who do you recommend manage the project for the hospital?
2. Steps and Timeline of Implementation
- a. Does your company have a detailed implementation plan with a timeline showing all the steps and the approximate time for each one?
 - b. Does your company have an implementation checklist (may be compatible with timeline) to document when each task has been completed?
 - c. How many vendor staff will be involved in the implementation?
 - d. How many hospital staff will need to be involved with the implementation?
3. Change Management
- a. How does your implementation approach address the need for process improvement?
 - b. How does your approach address identifying issues and coaching the hospital with regard to any cultural change that may need to occur to maximize the value of our investment in your product?
4. Training
- a. What type of training is involved/included in the implementation process?
 - b. What types of manuals/literature will be included for our staff in the training process?
 - c. What are the specific steps in the training process?
 - i. How long is each session?
 - ii. How many sessions are required?
 - iii. What hospital staff should be required to go?
 - iv. Where will the training take place?
 - v. What will the hospital need to provide for training?
5. Price of Implementation
- a. From kick-off to post-implementation, what is included in the purchase price of the software?
 - b. What services will cost extra?
 - i. How much will extra services cost?
6. Post Implementation
- a. Are there follow up meetings after implementation?
 - b. Will your staff be available for additional help?
7. Do you offer suggestions for us to manage the entire process internally?

Support

1. Vendor's Post Implementation Support
 - a. What type of support is offered post-implementation?
 - i. What period of time after implementation is this support available?
 - ii. Is there special support for new customers?
 - iii. Is there support for upgrades or system enhancements?
 - b. Is there anything distinguishing about the vendor's support system?
 - c. What are the vendor's normal hours of support operation?
 - d. What are extended/emergency hours of operation?
 - e. Do you guarantee a vendor response time to system issues?
 - f. Is there a help desk/hotline?
2. Downtime
 - a. What is the longest downtime period one of your clients has experienced that was due to a software problem?
 - i. What is the mean time of failures?
 - b. What is the cause of downtime?
 - i. Whose fault typically is it?
 - c. Can software support be performed remotely or only on-site?
 - i. Which is more typical?
3. Software Maintenance
 - a. What is included in your Annual Maintenance Agreement?
 - b. Does maintenance begin at the time the hospital goes live or when the purchase contract is signed?
 - c. What maintenance is included in the purchase price?
 - d. Does the vendor take full responsibility for software that proves to be non-functional after implementation?
 - e. What has been the average length of time (in months) between major enhancements in the system?
 - f. When is the next major enhancement scheduled?
4. User Group
 - a. Do you have a user group?
 - b. How often does it meet?

- c. How do you take input or direction from the user group regarding enhancements?
 - i. Please provide examples.

Security

- 1. HIPAA
 - a. Is the system security flexible and able to support HIPAA requirements?
 - b. How do you support HIPPA requirements today and what is your policy going forward?
- 2. Software Security
 - a. Does vendor offer public and private key encryption digital signatures?
 - b. Does the system support auto log-off after periods of inactivity? If so, can the period be adjusted to different time intervals?
 - c. Can the system provide access to authorized functions via a menu based on the user's sign-on ID and/or password?
 - d. Can the system provide a report of every transaction initiated on the system, identifying the location, date and time, function, and ID of the user, and whose chart they accessed?
 - e. Does the system have the ability to log access to the system and highlight attempts to gain unauthorized access?

Cost

- 1. One-time and Ongoing Costs of the Requested Features
 - a. Describe all of the one-time and ongoing costs of the requested features.
 - b. Please include a summary of pricing.
 - c. Which of the following characteristics of the hospital are factors in the pricing schedule?
 - i. Size
 - ii. Layout
 - iii. Location
 - d. What payment schedules are available?
- 2. What other functionalities are available that are not included in the proposal?

Appendix 2

RFP Functionality Matrix

Prepared For:

Designed by: Huron Consulting Group

Functional Requirements

Response Code Definition

- 5 This requirement is currently completely functional as part of the system capability, and is in use in another health care institution.

- 4 This requirement is currently functional as part of the system capability, but is not yet in use in another health care institution.

- 3 This requirement is not presently available in the system capability, but development is underway and planned first use is expected within two years of the date of vendor’s proposals.

- 2 This requirement is not presently available within the system capability, nor expected to be available within two years, but vendor can provide this capability with additional programming or other modifications at no extra cost. If the function will be available in a future release beyond two years, state the fact and the expected availability date.

- 1 This requirement is not currently available within the system capability, but vendor can perform this function with additional programming at additional costs (show this additional cost separately from other costs). If the function will be available in a future release beyond two years, please state that fact and the expected availability date.

- 0 This requirement is not currently available in vendor package and the vendor currently has no plans to provide this capability.

	<u>Category</u>	<u>Response Code</u>	<u>Please Explain/Comments</u>
	<u>General Requirements</u>		
1	Ability to differentiate between nursing and physician services		
2	Ability to use system with limited keystrokes		
3	System supports graphic representation of selected data?		

4	Ability to allow more than one user to access the same patient record at the same time.		
5	Modules integrated		
	Triage		
	Nursing Assessment		
	Physician History & Physical		
	Discharge Planning/discharge Disposition		
	Discharge Instructions-Multilingual, ability to add own or make changes		
	Prescription Writing-displays known allergies		
	Previous visit information		
	Departmental Logs		
	Regulatory requirements		
	HIPAA-logs appropriate transactions for reporting		
	Acuity systems		
	Order entry (real time)		
	Inpatient bed request/bed assigned		
	E&M coding-scoring of patient documentation		
6	Number of active users allowed can exceed 500.		
7	System has multi-site capabilities		
8	System has ability to access on-line EKG's, Health and Physicals, or x-ray results, old lab values, etc. for inpatients and/or out-patients.		
9	Ability for each user to customize their log -in screen		
10	System has Greeter function.		
11	Ability to e-mail within the EDIS system		
12	Supports e-mails with attachments. (e.g. files, programs, etc.)		
13	Ability to access the system remotely.		
14	Ability to use EDIS system to track messaging within group of physicians.		
15	Ability to provide installation procedures		
16	Has user friendly interface		
	- Easy to read		
	- Logical data flow		

	- Uncluttered screens		
17	Provides on-line system administrator documentation		
18	Ability to provide administrative and QA reports.		
19	Provides graphing and trending of data		
20	Ability to write reports/query data		
21	Ability to incorporate custom reports into the standard report selection menu		
22	Ability to customize wall display		
23	Ability to flag or alert clinician of abnormal or critical lab values or results		
24	Registration transactions (Real-time)		
25	Ability to customize screens for the following:		
	a. security		
	b. user		
	c. different entities		
26	System has EM vocabulary built in.		
27	Ability to format input fields		
28	System supports auto paging, e.g. page radiology techs for patient transport		
29	Ability to create screens that are user definable.		
30	System can generate level of acuity		
31	Supports hospital specific customizations		
	User Screens		
	Database Content		
	Security		
32	System tracks professional credentials and license information for all staff.		
33	Ability for different views on desk monitor based on user level		

34	System allows two way interfaces to admitting/registration		
	Tracking		
1	System has Patient status board.		
2	System has ambulance tracking board		
3	Ability to have a passive tracking function		
4	Ability to capture time of:		
	Patient in waiting room		
	Triage		
	Patient in treatment room		
	Patient with RN or Physician		
	Medications Administered		
	Bed request and bed assignment		
5	System allows sensitive patient data to be hidden on the tracking board		
6	The tracking board provides automatic updates and the data display every 10 seconds		
7	Ability to use color-coding to signify status of patients, orders, etc.		
	Triage		
1	System has a Triage Section.		
	Completely paperless records from triage to disposition.		
	Ability to bypass triage function in registration process if necessary.		
	Registration and triage can occur at the same time.		
	Quick registration function when identity is unknown		
	Ability to allow ED room assignment from triage		
	Ability for the system to accommodate wireless bedside registration		
2	Provides documentation capability for:		
	Patient complaint		
	Patient history		
	Initial visits		
	Orders		

2	Ability to carry forward patient information from visit to visit	-	
3	Ability to track previous visits, date/times, etc.	-	
	<u>Nurse Documentation</u>		
1	Ability to use templates and/or free text.	-	
2	Automatic time stamp and date.		
3	Ability to charge by documentation.		
4	Instant view of ED status.		
5	System provides automated entry of vital signs directly from patient monitors.		
6	Average LOS views and reports.		
7	Product features integrated risk management, including prompts for specific items of history and physical exam, and immediate feedback on their importance?		
	<u>Physician Documentation</u>		
1	Electronic signature available		
2	Automatic time stamp and date.		
3	Voice recognition for documentation		
4	Ability to use templates and/or free text.		
5	Ability to fax documents to primary physician.	-	
6	Ability to view and write orders at bed side.		
7	Ability to produce patient specific home care instructions		
8	Ability to provide home care instructions in multiple languages		
	<u>Technical Requirements</u>		
1	Ability to support interface to bar code readers	-	

2	Ability to produce standard HL7 transactions for ADT, Orders out, Orders in, results out, results in, client depository maintenance.		
3	System supports interfaces with the following:		
	MDE/Cardiac/Vital Sign Monitors		
	Order Entry-lab		
	Order Entry- Radiology		
	Order Entry- EKG		
	Billing		
	Clinical Data		
	Lab Results		
	Radiology Results		
	EKG Results		
	Pharmacy		
	Integrated Charge Capture		
4	Ability to import and export to Access and Excel.		
5	Updates can be applied with minimal effort.		
6	Supports expectation of 99% uptime of the system.		
7	Ability to add memory to the server.		
8	Supports optical image scanning capabilities within the ED		
9	Ability to run from a wireless network.		
10	Supports user defined fields in the primary data files and edit screens		
11	Ability to use either a mouse or keyboard strokes for every command.		
12	Supports hospital compatible hardware systems		
13	Supports hospital compatible database systems		
	Training		
1	Availability of the following training material:		
	a. Self-study materials		
	b. Case studies		
	e. Computer-based training		
2	User training available on-site.		

3	User training available at the vendor site.		
4	Training customized to the needs of the client.		
5	Availability of on-going training.		
6	The following documentation is provided:		
	a. User manuals		
	b. Quick reference tool		
	c. Trouble shooting guide		
	d. Error guide		
7	Technical Manuals		
	a. Record layouts		
	b. Application overview descriptions		
	<u>Support</u>		
1	Availability of a hotline/help desk		
2	Special support provided for new customers as opposed to existing customers.		
3	Support for custom system enhancements.		
4	Support for conversion to updated versions of the software		
5	Provides on-line, context-sensitive user help		
	<u>Security</u>		
1	Ability to provide access to authorized functions via a menu based on the user's sign-on ID and/or password		
2	Ability to provide a report of every transaction initiated on the system, identifying the location, date and time, function, and security access code of the user.		
3	Ability to provide a report of all attempted and successful accesses to the software, recording time, location, individual making the access, and security code utilized.		
4	Biometric log on		
5	System security is flexible and able to support HIPAA requirements.		

6	Compliance with current HIPAA security and privacy standards		
7	Ability to view access to the system and highlight attempts to gain unauthorized access.		
8	Automated screen saver for security/confidentiality issues		

Appendix 3

Interface Worksheet

Prepared For:

Designed by: Huron Consulting Group

Instructions: The hospital should fill out the Vendor Systems column before sending to the vendor. The vendor should answer yes or no as to whether or not they can support the hospital's existing system with their software.

Departmental Function	Vendor Systems	Does the software support this interface? Y/N
ADT/Registration		
Lab information systems		
Outbound Doc. To CDR		
Order Entry		
a. Lab		
b. Radiology		
c. EKG		
Order Status Update		
Results Reporting		
a. Lab		
b Radiology		
c. EKG		
Medication Stations		
Medication/Supply Stations		
Facility Billing		
Physician Billing		
Patient Monitoring		
Masterfile Update		
Bed Board		

Function	Contracted	Installed & Operating	Reference
Tracking Only			
Tracking & Nursing			
Tracking & Physician			
Tracking & Nurse & Physician			
Charge Capture			
Track & Nurs & Phys & Chg Capt			
ADT Interface			
Lab Interface			
Other Interface			
Risk Management			

Appendix 4

Weighted Summary

Prepared For:

Designed by: Huron Consulting Group

Step One- Score Vendor Responses

The following table represents the total score for each outlined section on the Functionality Matrix.

	User Total Score
	Level of Functionality
Software Requirements	
General Requirements	35
Tracking	13
Triage	14
Nurse Documentation	20
Physician Documentation	24
Technical Requirements	45
Training	41
Support	29
Security	31

Step Two- Weight Vendor Response (Optional)

This table represents the total score after the weight factor has been applied. This table imports the Functionality Total value from the above table, and then multiplies it by an assigned weight factor. This weight factor is completely discretionary and will be based solely on each individual hospital's assessment of which sections are most valuable. Once the total score for each individual section has been calculated, a final score is calculated by adding up each individual section. This total is the final score given to the vendor, and the score that is used to narrow down each vendor to the finals.

	Total Weighted Score		
Software Requirements	Level of Functionality		
	Functionality Total	Weight Factor	Total Score
General Requirements	35	2	70
Tracking	13	1	13
Triage	14	1	14
Nurse Documentation	20	1	20
Physician Documentation	24	1	24
Technical Requirements	45	1	45
Training	41	1	41
Support	29	3	87
Security	31	2	62
Vendor Total			376

Step Three- Compare Vendor Total Scores

This final table represents the totals for each vendor. Those vendors with the highest scores will be finalists for the vendor demonstrations.

	Total Weighted Score		
Software Requirements	Level of Functionality		
	Vendor 1	Vendor 2	Vendor 3
General Requirements	70	109	98
Tracking	13	39	45
Triage	14	78	45
Nurse Documentation	20	32	98
Physician Documentation	24	17	102
Technical Requirements	45	67	35
Training	41	43	123
Support	87	23	56
Security	62	32	78
Vendor Total	376	440	680

Appendix 5

**Vendor Demonstration
Worksheet
Prepared For:
Designed by: Huron
Consulting Group**

**Instructions: Hospital should mark an X in the box that best suits their expectations during the demonstration.
The hospital should also look to the bottom and fill in any special requests they may have during the demonstration.**

		Exceeds Expectations	Meets Expectations	Fails Expectations
	<u>General Requirements</u>			
1	Ability to use system with limited keystrokes			
2	System supports graphic representation of selected data?			
3	Modules integrated			
	Triage			
	Nursing Assessment			
	Physician History & Physical			
	Discharge Planning/discharge Disposition			
	Discharge Instructions- Multilingual, ability to add own or make changes			
	Prescription Writing-displays known allergies			
	Previous visit information			
	Departmental Logs			
	Regulatory requirements			
	HIPAA-logs			

	appropriate transactions for reporting			
	Acuity systems			
	Order entry (real time)			
	Inpatient bed request/bed assigned			
	E&M coding-scoring of patient documentation			
4	System has ability to access on-line EKG's, Health and Physicals, or x-ray results, old lab values, etc. for inpatients and/or out-patients.			
5	System has Greet function.			
6	Ability to e-mail within the EDIS system			
7	Has user friendly interface			
	- Easy to read			
	- Logical data flow			
	- Uncluttered screens			
8	Ability to provide administrative and QA reports.			
9	Provides graphing and trending of data			
10	Ability to write reports/query data			
11	Ability to flag or alert clinician of abnormal or critical lab values or results			
12	Registration transactions (Real-time)			

13	Ability to customize screens for the following:			
	a. security			
	b. user			
	c. different entities			
14	Ability to create screens that are user definable.			
15	System can generate level of acuity			
16	Ability for different views on desk monitor based on user level			
	Tracking			
1	System has Patient status board.			
2	System has ambulance tracking board			
3	Ability to have a passive tracking function			
4	Ability to capture time of:			
	Patient in waiting room			
	Triage			
	Patient in treatment room			
	Patient with RN or Physician			
	Medications Administered			
	Bed request and bed assignment			
5	System allows sensitive patient data to be hidden on the tracking board			
6	The tracking board provides automatic updates and the data display every 10 seconds			

7	Ability to use color-coding to signify status of patients, orders, etc.			
	<u>Triage</u>			
1	Provides documentation capability for:			
	Patient complaint			
	Patient history			
	Initial visits			
	Orders			
2	Ability to track previous visits, date/times, etc.			
	<u>Nurse Documentation</u>			
1	Ability to use templates and/or free text.			
2	Automatic time stamp and date.			
3	Instant view of ED status.			
4	System provides automated entry of vital signs directly from patient monitors.			
5	Product features integrated risk management, including prompts for specific items of history and physical exam, and immediate feedback on their importance			
	<u>Physician Documentation</u>			
1	Electronic signature available			
2	Automatic time stamp and date.			
3	Voice recognition for documentation			
4	Ability to use templates and/or free text.			

5	Ability to fax documents to primary physician.			
6	Provides electronic signature capabilities for prescriptions.			
7	Ability to view and write orders at bed side.			
8	Ability to produce patient specific home care instructions			
9	Ability to provide home care instructions in multiple languages			
	<u>Technical Requirements</u>			
1	Ability to use either a mouse or keyboard strokes for every command.			
	<u>Security</u>			
1	Ability to provide access to authorized functions via a menu based on the user's sign-on ID and/or password			
2	Ability to provide a report of every transaction initiated on the system, identifying the location, date and time, function, and security access code of the user.			
3	Ability to provide a report of all attempted and successful accesses to the software, recording time, location, individual making the access, and security code utilized.			
4	Biometric log on			