

**California  
Behavioral Health  
Electronic Health Record  
(CA BH-EHR)  
Request for Information**

**September 17, 2008**

**Version 1.0**

**CALIFORNIA DEPARTMENT OF MENTAL HEALTH  
*Information Technology Division***

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## **Introduction to this Request for Information (RFI)**

The passage of Proposition 63, the Mental Health Services Act (MHSA) in November 2004, provided resources to support the delivery of mental health services by California’s 58 county mental health programs and to monitor their progress toward statewide goals for mental health care in California. The MHSA provided funding for the infrastructure, technology and training elements that support a county’s ability to address a broad spectrum of prevention, early intervention and service needs for children, transition age youth, adults, older adults and families. Improvement in client outcomes is a fundamental expectation throughout the MHSA implementation process.

Under MHSA, each county must develop Technological Needs Project Proposals that address the development of a long-term infrastructure that will facilitate the cost-effective delivery of the highest quality services and supports for consumer and family wellness, recovery and resiliency. Each county is responsible for its own budget and for tailoring its project proposals to meet the needs of the clients in that community.

## **DMH Technology Goals**

All County MHSA Technological Needs Project Proposals must be framed within the context of the guiding principles of MHSA. The specific technology goals are to:

- Increase **CONSUMER AND FAMILY EMPOWERMENT** by providing the tools for secure consumer and family access to health information within a wide variety of public and private settings.
- **MODERNIZE AND TRANSFORM** clinical and administrative information systems to improve quality of care, operational efficiency and cost effectiveness.

To facilitate the improvement of behavioral health services in the state of California, the Department of Mental Health (DMH), in collaboration with the County Mental Health Programs, contract providers, and the client, family and vendor communities, has assembled the requirements for an Electronic Health Record (EHR) System that would be a *'secure, real-time, point-of-care, client-centric information resource for service providers'* and would allow for the exchange of client information according to a standards-based model of interoperability.

DMH recognizes that the development of standards is an ongoing process that often reflects competing interests and, that standards are often more developed in some areas than in others. DMH wishes to facilitate the process whereby vendors adapt their systems to adhere to the standards that best serve the needs of California's behavioral health care recipients.

The purpose of this RFI is to share business and functional requirements with vendors and to obtain information about each vendor's ability to deliver standards-based and interoperable behavioral health information systems in California. This RFI will assist in obtaining information from vendors to be shared with the County Mental Health Programs with the intent to aid County/Vendor compliance with requirements. DMH is not building a single statewide system.

## Business Requirements

The following business requirements, derived from Enclosure 3 of the *MHSA Capital Facilities and Technological Needs Proposed Guidelines*, reflect the State's desire that 'secure, real-time, point-of-care, client-centric information' be available in an interoperable environment.

Provide accurate and current information about a consumer's mental health history to the service provider, the consumer and their family, when appropriate.
Promote client and family awareness and empowerment by emphasizing education and preventative care, and by providing an interface for exchanging data with a Personal Health Record (PHR).
Ensure access to mental health information that enables consumers to be informed and make sensible choices within the mental health system.
Promote informed, collaborative decision-making processes for clients, families, and clinicians.
Assist service providers with recording and monitoring the client needs and provide a means of reporting the utilized treatments that can be linked to the ongoing improvement of service quality and recovery.

Securely provide consumers with the ability to view and enter comments or data in their records, and the ability to share their journey with a designated family member, friend, and service provider.
Provide complete and accurate health information that is crucial in reducing medical errors and improving care coordination such as medication history, lab results, and other clinical information.

Provide the ability to review treatment and recovery information in a standardized format in order to develop decision support tools for improved client treatment by enabling the measurement of quality indicators as determined by national, state and county standards.
Decrease time in common administrative procedures and efficient communications with clients, family, and service providers.
Provide for integrated outcomes measurements that assess services and determine their cost-effectiveness.
Enable a collaborative decision-making process with service providers, consumers, and families in all aspects of the mental health system.
Automate core business functions – billing/claiming, assessments, workflow processes, etc.
Aid decision-making by providing access to health record information where and when they need it and by incorporating evidence-based decision support.
Provide clinicians with secure, real-time access to accurate, client-centric, clinical information that is communicable through interoperable behavioral and medical health systems using standards developed by Standards Developing Organizations (SDOs), such as the Certification Commission for Healthcare Information Technology (CCHIT) and Health Level Seven (HL7).
Allow different County systems to share information across a secure network environment both inside and outside their respective counties. Counties and their contract providers, hospital emergency departments, laboratories, pharmacies, and consumers and their families could all securely access information.

**Functional Requirement Categories**

The functional requirements that support these business requirements were developed by workgroups comprised of representatives from DMH, the County Mental Health Programs, and the client, provider, and vendor communities. These workgroups combined established Ambulatory, Interoperability and Security functional requirements from CCHIT with requirements that are specific to the delivery of behavioral health services in California to develop a set of functional requirements that are grouped into the following categories:

**1. Infrastructure Function Requirements**

Includes hardware and software with basic level of security and systems ready to deploy

software. Interoperable EHRs require a structure for sharing information—a secure network.

## **2. Practice Management Function Requirements**

Includes registration, eligibility, accounts receivable, accounts payable, billing, documentation, and reporting these requirements. Addresses the complex financial and administrative needs of physician practices. These requirements will help County Mental Health Departments formulate the criteria needed to provide critical support for practice management functions to increase productivity, improve financial performance, financial management and compliance programs, and determine legal implications of business arrangements.

## **3. Clinical Data Function Requirements**

Includes clinical documentation such as assessment, treatment notes, and other clinical measures (such as data elements and corresponding definitions) that can be used in the measurement of patient clinical management and outcomes, and for research and assessment. Clinical documentation elements also help facilitate communication across provider types to enhance communication and improve coordination of care.

## **4. Computerized Provider Order Entry (CPOE) Function Requirements**

Includes internal and external laboratory, pharmacy and/or radiology ordering and history display. These requirements address optimizing physician ordering of medications, laboratory tests with interactive decision support systems. Integration with other hospital information technology systems including electronic patient records, pharmacy, laboratory, and other services provides the prescriber with all information necessary to develop and transmit in an effective, error-free order.

## **5. Full Electronic Health Record (EHR) Requirements**

Includes infrastructure, health record capture, decision support, reporting, data transfer and CPOE components that are interoperable with external systems such as those used by contracted providers using industry standards.

## **6. Full EHR and Personal Health Record (PHR) Requirements**

Includes full EHR functionality and interoperability with a Personal Health Record system.

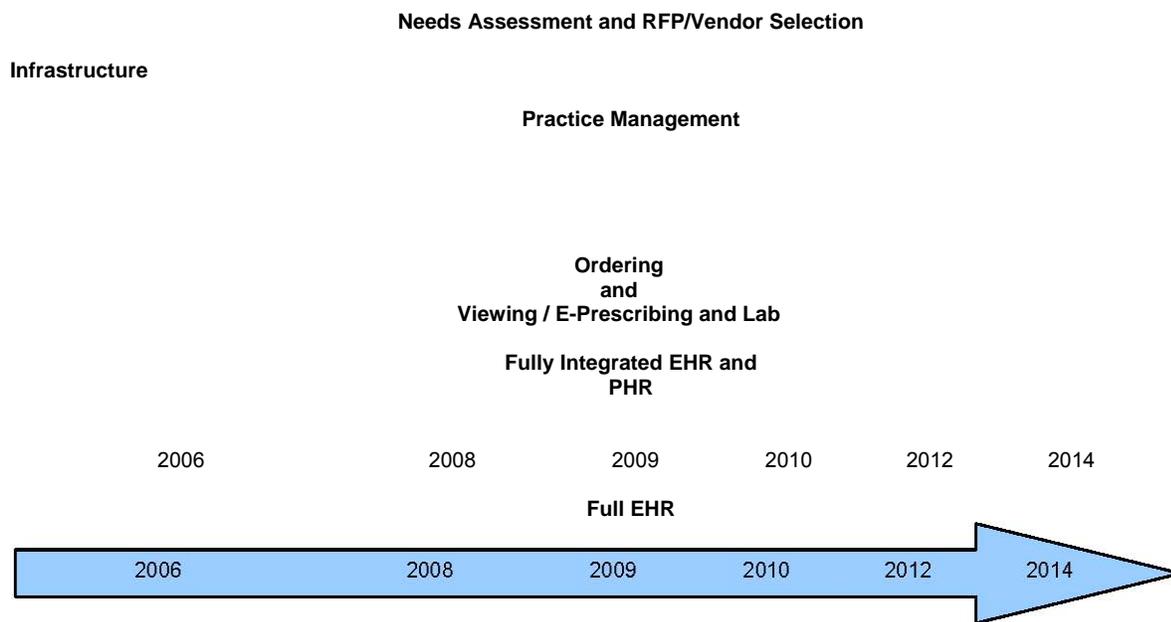
In an effort to provide the counties with a comparison of the different products on the market, the CA Department of Mental Health, is releasing this RFI to vendors. The results of this RFI will be shared with the 58 California Counties as they embark on choosing the vendor(s) and product(s) that will meet their individual county needs and align them with the statewide objectives for Electronic Health Record implementation and interoperability.

The intent of this RFI is to provide a mechanism for County Mental Health Programs to:

1. Evaluate the current vendor offerings available to them.
2. Assess the vendors' capabilities in a common platform of comparison.
3. Determine the vendors' ability to work in partnership to achieve the long term goals of interoperability with a variety of electronic health records and personal health record configurations as described in the DMH Integrated Information System Roadmap (Below).

DMH encourages any interested vendor to respond even though that vendor's solution may not be designed to address all of the Functional Requirement Categories identified by this RFI.

### DMH Integrated Information System Roadmap



### Response Format

In order to aid in the consistency of responses received, vendors are requested to:

1. Submit your responses in Word format using 11 point Arial font.
2. Submit your response in a version of MS-Office no older than version2000.

3.

Ensure that typed answers are provided to all questions. If any specific question or item does not apply to your response, please indicate so by answering 'N/A' for Not Applicable.

4.

Respond to each of the requirements in the CA BH-EHR Functional Requirements Survey (an Excel spreadsheet) that accompanies this RFI document. The Functional Requirements Survey is an essential part of this RFI and must be completed and returned with this RFI document. See Section I in this document for more information about how to complete the Functional Requirements Survey. Vendors are encouraged to respond even if their solution does not address all of the functional categories identified in the RFI. Please be sure to respond to all of the requirements in the RFI. A response of "Not applicable" or "Not addressed" is acceptable when appropriate.

5.

In each of the remaining sections of this RFI, a numbered indicator is used to identify a "Required Response". The format of this indicator is "RR-x-**nn**" where "x" is the section letter and "nn" is the number of the question in that section. For example the 1<sup>st</sup> question in Section D is labeled "RR-D-01".

6.

Use Appendix A to append company or product literature to support, but not replace, an answer. **Please ensure that each enclosure within Appendix A contains a reference to the question or requirement for which the additional information is being provided.** Vendors are encouraged to use as much space as necessary to provide answers to all questions.

## Response Delivery

This document and the CA BH-EHR Functional Requirements Survey must be submitted in electronic format no later than 5:00 p.m., PST, 11/11/2008. Please E-mail your response to: [MHSA-IT@dmh.ca.gov](mailto:MHSA-IT@dmh.ca.gov).

Be sure to append **your company's name** to the end of each file's name to distinguish it from all other responses. For example, if your company name is **ABC Company**, then prior to submission rename your files to:

1.

CA BH-EHR RFI **for ABC Company**.doc and

2.

CA BH-EHR Functional Requirements Survey **for ABC Company**.xls

If you wish to mail any supplemental information in hard copy it must be postmarked no later than **11/11/2008** and send to:

**California Department of Mental Health  
Information Technology  
Attention: MHSA-IT  
1600 9<sup>th</sup> Street, Room 141  
Sacramento, CA 95814**

**RR-D-01** Please provide the following information regarding the makeup of your company.

<b>CORPORATE INFORMATION</b>	
<b>Company Name – Raintree Systems, Inc.</b>	
<b>Company Type (C-Corp, S-Corp, LLC, LLP, Sole Proprietorship, Etc.) – C Corporation</b>	
<b>Location Of Corporate Headquarters – Temecula, California</b>	
<b>Location Of Field Support Offices Temecula California</b>	
<b>Location Of Programming/Technical Support Personnel Temecula California</b>	
<b>27307 Via Industria Temecula, CA 92590</b>	
<b>PRIMARY CONTACT INFORMATION FOR THIS RFI</b>	
<b>Name - Charles Lee</b>	
<b>Title – National Sales and Marketing Manager</b>	
<b>Office/Location Address 27307 Via Industria Temecula, CA 92590</b>	
<b>Phone Number – (951) 252-9422</b>	
<b>E-Mail Address – charlesl@raintreeinc.com</b>	
<b>Internet Home Page – www.raintreeinc.com</b>	

**RR-D-02** Provide an overview of your firm and its history. Describe the strength of your firm and its ability to meet the needs of California’s behavioral health recipients and providers.

Raintree Systems, Inc. has an established history in the healthcare practice management industry. Our company was originally founded as a billing service bureau in 1983 and was built in a mini-computer platform. This allowed Raintree to deploy the product in hundreds of offices from just a few servers with very low bandwidth modem connections.

In the mid eighties, Raintree recognized MS DOS and the explosion of PCs into healthcare provider offices as the wave of the future. Raintree developed its practice management products to run on the MS Operating Systems. Raintree’s Product Development Team made the ability to deploy Raintree across multiple clinics within an organization a key objective throughout its development history. Because Raintree was designed with flexibility/customization as a top priority, we were able to expand to thousands of provider companies in over fifty vertical healthcare markets throughout the United States.

Since the mid 1990s, Raintree has focused most of its marketing and implementation resources on large-scale implementations. During this time period, Raintree’s customer base expanded to very large provider groups (hundreds of locations), billing services and County Health Departments throughout the country. Raintree’s continued expansion into new healthcare

markets such as the Urgent Care, Radiology, Behavioral Health, Physical Therapy and Durable Medical Equipment industries has forced Raintree to continually expand its Rule Based Patient/Client Management Tools.

Over the last 6 years, Raintree has developed a MySQL database application that uses all of the modules and tools available in previous versions of the application. Over this time period, Raintree both integrated with many HL7 and SOAP XML compliant EMR applications and developed its own EMR module for certain vertical healthcare markets. During this period, Raintree developed report server technology allowing for enterprise wide roll-up reporting capable of capturing data from hundreds of clinic locations.

Raintree has been awarded contract for publicly traded company customers and government agencies. To maintain compliance with Sarbanes-Oxley (SOX) regulations, Raintree has completed the SAS70 type II audit certification offer the calendar years 2005, 2006, 2007 and 2008. Raintree currently have 2,000 customer installations within more than 50 unique healthcare specialties.

**RR-D-03** List the number of employees (Full-time equivalents) in your organization by category for the last 3 years:

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<b>Category</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Total Employees</b>	77	80	77
<b>Installation / Setup</b>	27	29	21
<b>Research and Development</b>	29	30`	30
<b>Application / Technology Support</b>	4	3	3

**Customer Service / Helpdesk  
Support**

10

11

13

<b>Other</b>	8	8	8
<b>Those with Clinical Backgrounds:</b>	3	2	2
– <b>Physicians</b>	0	0	0
– <b>Psychologists</b>	1	0	0
– <b>Psychiatrists</b>	0	0	0
– <b>Registered Nurses</b>	2	2	2
– <b>Other Clinicians</b>	0	0	0

**RR-D-04** Has your company acquired or merged with any other organizations in the past three years? If so, please list each organization and the purpose behind such activity.

Raintree has not been acquired or merged with any other organizations over the last 3 years.

**RR-D-05** How long has your company been in the business of developing and implementing your Electronic Health Record related products?

Raintree has been in business providing practice management software solutions since 1983. Raintree has been providing Electronic Health Records since 1991.

**RR-D-06** What were your firm's annual revenues for the last 3 fiscal years?

As a privately held corporation, Raintree reserves the right to withhold proprietary financial information. In the event that Raintree is selected as the vendor, we will agree to provide your organization with the requested financial information. To substantiate the financial viability of our company, we would like to point out that our company has several large publicly traded customers such as HCR ManorCare™ and US Physical Therapy™. Raintree also has public customers such as state and county agencies including Multnomah (Portland) County and Spokane County. We are open to discussing this further with senior management from your organization if necessary.

<b>Category</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>\$1,000,000 to \$5,000,000</b>			
<b>\$5,000,000 to \$25,000,000</b>	X	X	X
<b>\$25,000,000 to \$100,000,000</b>			

Greater than \$100,000,000			
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**RR-D-07** What percentage of your firm's annual revenue directly resulted from behavioral health care solutions during the past 3 fiscal years?

Category	2005	2006	2007
Percentage of Annual Revenue Resulting from BH Solutions	20	20	20

**RR-D-08** What percentage of annual revenue did your company expend for research and development (R&D) on your proposed products during the last 3 fiscal years?

Category	2005	2006	2007
Percentage of Annual Revenue Expended on R&D	40	42	45

**RR-D-09** What percentage is budgeted for R&D in the current and next fiscal year?

Category	2008	2009
Percentage of Annual Revenue Budgeted for R&D	45	45

**RR-E-01** Please list any partners and/or resellers in the areas of behavioral health: Strategic or tactical development, sales, support, delivery, consulting, or training.

AiT offers solutions meeting today's increasing demand for current & emerging technologies. Whether you are upgrading your network or implementing new technology, AiT provides the high-quality service that allows you to operate at maximum efficiency. With state-of-the-art technology, AiT provides superior expertise and quality service, aligning your project needs with today's emerging technologies. We work closely with our customers in each phase of their project, ensuring no question goes unanswered, no problem goes unsolved. Post-project, our Technical Support team is in place to provide world-class customer service on a continuing basis. AiT's clients vary in size, location and industry. While they have a deep-seated competency in both Healthcare and Banking we also have many successful clients in other verticals such as Manufacturing, Retail and even Government. Our "typical" client has more

than one location (most have several) and desires a secure, stable network to conduct their day to day business.

4526 Federal Avenue  
Building 2  
Everett, WA 98203

**RR-E-02** For each partner or reseller listed above, please identify the following:

1. Functional areas. - Networking, Implementation and Technical Support
2. Nature of partnership/relationship. – Behavioral Health Distributor
3. Length of the relationship. 5 Years
4. Referencable customers for whom you have jointly provided services.

Raintree and AiT jointly provide services to Sound Data Services (11 Behavioral Health and Human Services Providers in the North Sound Region of Washington).

Descriptions of the Functional Requirement Categories referenced in questions RR-F-01 through RR-F-05 of this section are in The Preface (Section A). In your responses to the questions in this section, emphasize your experience in the State of California.

**RR-F-01** Describe your firm's experience and qualifications in design, development, and implementation of Behavioral Health Practice Management systems.

Raintree currently has two Behavioral Health Practice Management installations in the State of California. PsyCare Inc. in San Diego County implemented Raintree in 1994 and has used the application for scheduling, billing and collections for more than 14 years. PsyCare has 10 locations throughout San Diego County.

College Health IPA based in Cerritos California has used Raintree for case management, scheduling, billing, collections and claims adjudication since 1999. College Health IPA is the largest Behavioral Health IPA in the State of California with over 5,000 providers within its network.

## **Product Overview**

Raintree is an industry application solution that provides an all-in-one electronic practice management and electronic medical records system within the same product platform. Our products provide our customers with integrated workflow management, marketing, scheduling, electronic health records, billing, collections and reporting tools that ensure that our client partners are able to streamline productivity improve financial performance and provide better quality care to their patients.

Raintree has a built in workflow to accommodate all care paths. Raintree's workflow management tools (Raintree Practice Principles™) provide management teams with structured rules based monitoring features and reports that ensure that our customers are meeting their strategic and operational objectives on a continual basis. The Raintree EHR system is intuitive and fast enough to afford the time to enter data simultaneously while investigating and discussing symptoms with the patient. It does enhance the normal diagnostic process by saving the clinician and patient time.

All forms within Raintree can be created and delivered electronically from Raintree to any other

system that we choose to configure integration with. Raintree offers real-time eligibility checking with a click of a button within the Raintree application.

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Raintree automatically takes into account the reconciliation of the remittance advice and actual cash payment with the existing contract pricing on file. Raintree will automatically identify any shortages and efficiently provide management with the information necessary for disputing the payment. This is part of Raintree's standard reporting mechanism and can be configured as part of the reports that appear on the executive dashboard. Raintree has the ability to handle transactions integrated with authorization tracking and claims adjudication and/or re-pricing. Raintree has the ability to receive paper and electronic claims to produce the EOBs and checks automatically. Raintree has an advanced provider searching with mileage and special needs. Raintree also has line item reimbursement that can be defined by: plan, program, region, credential, location or special negotiated rates. Raintree has specific trend reporting by diagnosis, zip code, provider utilization – all user definable.

The application is a complete billing and collection system integrated with ability to sent paper and electronic claims. Raintree's flexibility when it comes to reporting is extraordinary. Using Raintree's built in Reports Generator, when a report is generated and first appears, a user can right click the mouse on the report at which time a menu will pop up allowing the user to easily choose to export the application to MS Excel™. This will allow a user to easily translate the data into a comma delimited file. This has many useful purposes. In the instance where Raintree can generate a Site Location analysis report, this is very useful. Because Raintree captures the latitude and longitude of each individual entered into the system this data can easily be exported to a geographic information system (GIS) so users can easily get a visual representation of where their patients reside. These reports are useful for both marketing and expansion planning. Raintree has over 150 standard reports and our customers are able to create their own reports and add as many components directly to the standard reports effortlessly. Raintree can easily report from the ledger, financial class breakdown, zip code breakdown (site location analysis), referral tracking report, report by diagnosis, OTC medication, prescription medication prescribed and much more.

Many of Raintree's customers manage multiple locations within different regions. The Raintree Report Server allows generating compiled reports based on results across databases. This is another important differentiator, as other applications require that reports be run for each site to be combined within other spreadsheet applications. These processes are both lengthy and often provide inaccurate results. Any provider who has the proper security access can remotely access a patient chart and / or record for the purposes of review and notification of special handling or concerns. A patient chart or record can even be sent securely to a provider via a secure HIPAA encrypted email. This provider does not even need to be a licensed Raintree user. They can be assigned a specific password or pin number to unlock the file for review.

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**RR-F-02** Describe your firm's experience and qualifications in design, development, and implementation of Behavioral Health Clinical Data Management systems.

One of Raintree's true differentiators is the ability for customers to customize rules, screens, forms, reports etc to their Raintree Applications. This both significantly reduces costs and provides the customer with autonomy from Raintree in the event it wants to develop unique product features and reports. Our enterprise-wide customization can be set up to bring up custom forms, trigger rules or run reports by user ID, credentialing, event/limits, location and

security level. There are some customers who do not desire to develop their own customization. These customers also benefit from our product's flexibility as the product enhancements\customization typically cost a fraction of what our competitors charge for new screens, forms, rules and reports

Raintree's flexibility is unmatched in the industry. Using built in enhancement tools. Raintree technicians can make changes to any screen or field in the product. In addition, end users can be trained by Raintree to use these tools and make changes as needed. State and federal requirements are constantly changing, and Raintree responds to these changes as they arise. Most changes are fulfilled using our Product Change Request document, provided to us by the customer when notified of new requirements.

Raintree is a comprehensively customizable application. Our product's forms and screens builder allows users with proper security rights to alter tables, screens and forms. Our simple built-in scripting language, which allows the inclusion of PHP code, can be used to create rules and triggers that can bring up the custom forms by user ID, discipline, diagnosis, procedure etc. Validation checks and rules-based triggered events and alerts can be set up on every custom field. Screens and data objects can be manipulated so easily that with minimal training, the customer's staff can conduct further supplementary customization even after the system is running live. Custom screens can also contain fields that can be reported upon at the user, site, region and corporate levels.

The proposed application includes a simple, "What-You-See-Is-What-You-Get" screen editor. Modifying screens does not require any programming skills or specific knowledge of any kind. The abilities to modify both existing and new custom input forms and screens are limitless. These custom forms and screens can also contain linked or imbedded screens and can be reported on with minimal configuration required. Raintree regularly hosts Technical Training Seminars which enables our customer's information services team to learn how to develop their own custom screens/forms, reports and rules.

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**RR-F-03** Describe your firm's experience and qualifications in design, development, and implementation of Computerized Provider Order Entry (CPOE) systems.

Raintree can interface with any laboratory provider which is HL7 Compliant. We currently have developed interfaces with LabCorp and Quest Diagnostics.

**RR-F-04** Describe your firm's experience and qualifications in design, development, and implementation of interoperable Electronic Health Record (EHR) systems.

Raintree has implemented Electronic Health Records within and outside of the Behavioral Health Industry since the 1990s. Raintree's Electronic Health Records (EHR) records provide a HIPAA-compliant means of tracking clinical documentation with full rich-text formatting support. In addition to built-in fields defined for each record, it is a simple matter to assign custom fields and screens for any EHR through the use of EHR Templates. In addition, EHR records can trigger formscripts that display built-in or customized screens, run reports, send email messages, schedule appointments, add charges to the ledger, or perform any other task that can be accomplished via formscript.

Each EHR contains several components:

- Control fields

- An attached rich-text format (RTF) document
- User-defined attached custom fields

### EHR Rich Text Format (RTF) Documents

Each EHR record contains an attached rich-text format (RTF) document. This document may be blank, or might contain merged text variables. This is a printable document which would be considered the final document for some process, such as a Progress Note, or a Treatment Plan. The RTF Documents for each EHR record are stored as BLOB fields within the core EHR table.

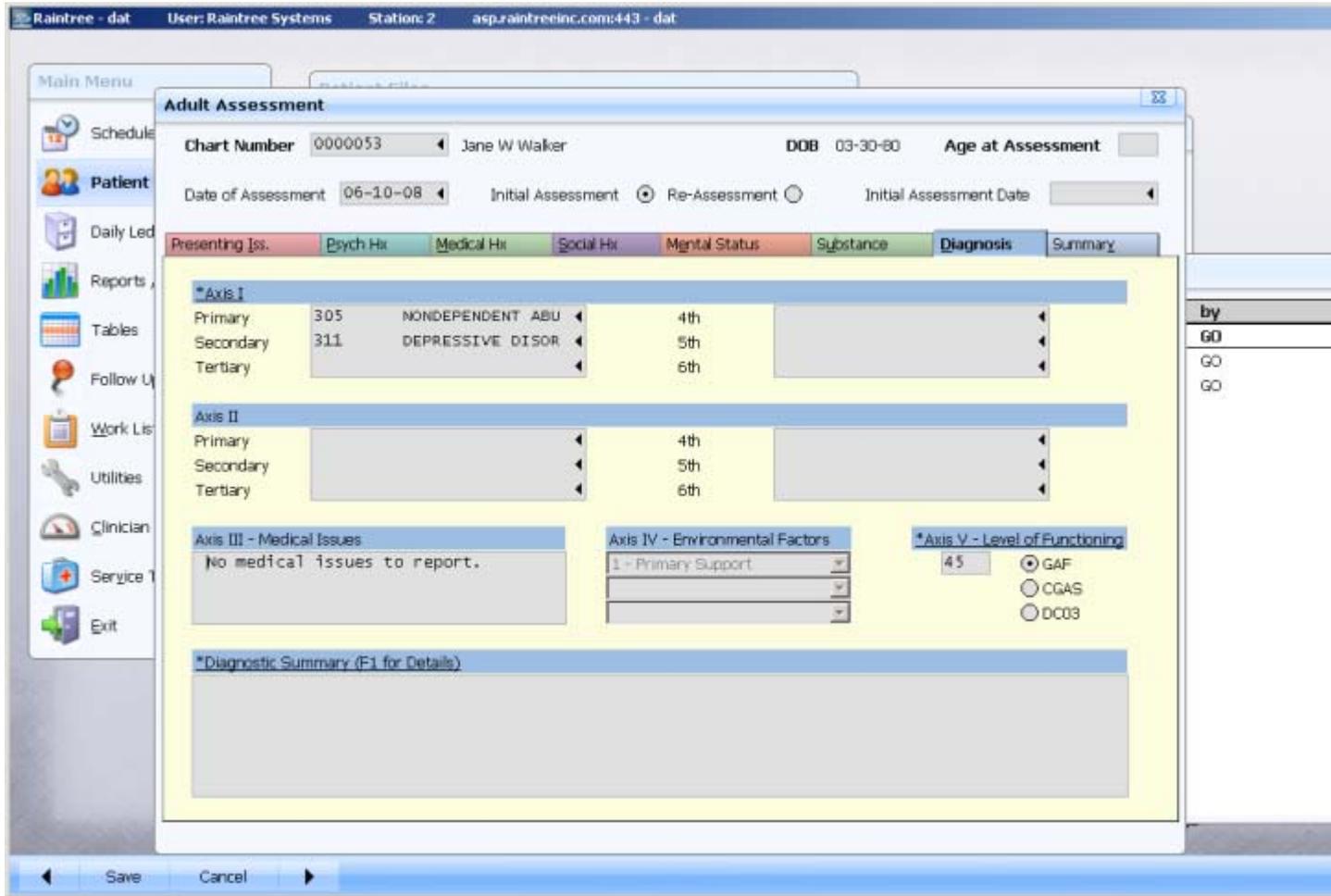
\*There are advanced programming commands to force an EHR record to use an Overlay document (RTO) as its EHR document, rather than the standard RTF document each record has by default.

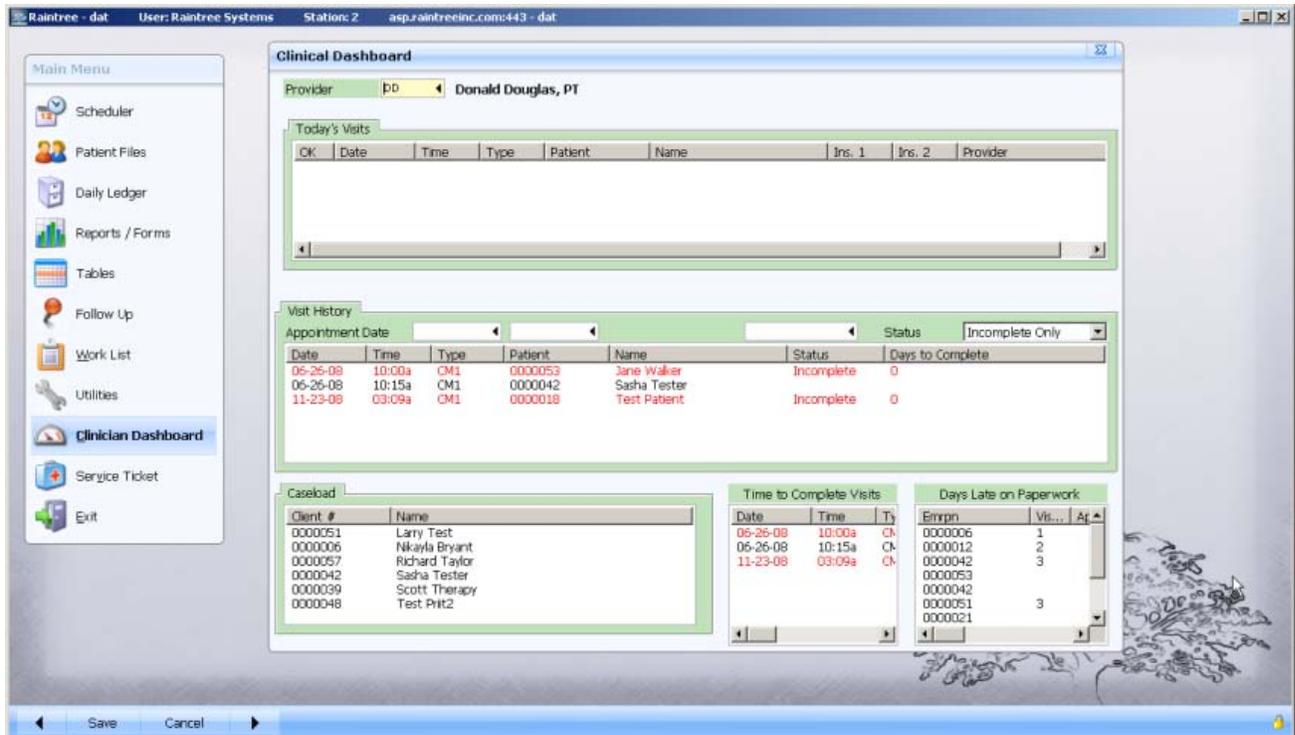
### Features and Benefits at a Glance:

Feature	Benefit
Sign-Offs / Electronic Signatures	EHR Documents provide users with an electronic signature system supported by the core Raintree product. When a user signs off a document, she is prompted for her Raintree password. Once the password is successfully given, the EHR record and its attached RTF document becomes read-only; a signed-off progress note, for example, can never be altered.
Amendments	The Amendment Process allows users to track different versions of signed-off documents. Once a document is signed off and made read-only, users can add amendments to that document. Each amendment is a new copy of the previous version of the EHR document, with its own control fields, RTF document and user-defined fields. Since amendments are themselves EHR documents, each is signed off and can be amended.
The EHR Editor	The Editor allows you to edit, save and print Rich Text Format files.
Template Categories Table	Categories are tree-structured, meaning that you can define child categories that are linked to a parent category.
EHR Templates Table	The EHR Templates table contains the definition of every template, including its category, which scripts or screens are linked to the template, and the merge template that will be used to create EHR documents using that template.
EHR Lists	EHR Lists allows users to define filtered interactive lists of EHR records without requiring any custom programming. These lists can be used as stand-alone table views ("live lists") linked from a menu option or drop-down field in a custom screen, as embedded lists within a screen (such as a dashboard), or as an insertable RTF table that can be inserted into any EHR document. EHR lists can be very simple or very complex.
The RTM Screen Builder	The RTM Editor represents the screen that is currently being edited. You can build the template by placing and arranging different widgets on the Template Window. (There is a vertical widget bar to the left of the Preview area.) Keep in mind that the Template Window is not an exact representation of the real screen. Widgets are actually abstract objects, based on which the real screen with real components is

<b>Feature</b>	<b>Benefit</b>
Audio Recordings	created in the main application. The Audio Recordings widget allows users to store sound files within a record. This is useful when documentation is dictated, then transcribed by another person.
Link to Scanned Items	The Image Widget enables you to create an area where the end user can store and view image files. It is actually a picture frame, which defines the area that will accept images on the final screen. Once the fields are created on the screen, the user then interacts with the Image Upload Manager.

We have provided examples of screen shots of an Assessment and a sample of a clinician dashboard below:





**RR-F-05** Describe your firm's experience and qualifications in design, development, and implementation of Personal Health Record (PHR) systems.

At Raintree we realize that maintaining continual communication with clients ensures that providers are providing the best level of customer service possible. Leveraging modern communication technology is critical in today's dynamic continuity of care environment. Raintree has developed a full suite of HIPAA compliant communication portals. With the use of our emails and interactive messaging portals, clients are able to view treatment reminders, electronic records, copayment balances and appointment reminders. This tool also provides clients with easy to use tools that enable them to self-register, book appointments online and communicate interactively with individual staff members and providers within program or department. Raintree supports both the HL7 and Continuity of Care Records (CCR) interoperability communication standards.

**RR-F-06** Describe your firm's experience and qualifications for Systems Integration.

Raintree has completed integration with 3<sup>rd</sup> party applications for over 15 years. Our application is currently interfaced to state mandates reporting agencies within the State of Oregon and State of Washington.

Raintree is compliant with the following industry standard protocols including, but not limited to: HL7, XML (SOAP), ANSI 270, 771, 277, 837,835,240,241. Raintree has met all published HIPAA requirements and uses Blowfish encryption technology. Raintree has completed 3 independent Sarbanes-Oxley Type II Audit Certification (SOX), the most recent of which was completed in the 4<sup>th</sup> Quarter of 2007. We will provide this report upon request when the final version is completed and approved.

Raintree has a built-in import and export utility that is able to import and export data from any comma or tab delimited spreadsheet or application. In addition to the ANSI interface capabilities within Raintree, Raintree is able to import and export data via the following utilities:

ODBC - This API is used to access the backend database (MySQL).

Microsoft's HL 7 (COM and DCOM) - This API is used for exporting and importing data between Raintree and other applications such as General Ledger applications.

Simply Object Access Protocol XML (SOAP XML) - This API is used for exporting and importing data between Raintree and other applications such as General Ledger applications.

PHP - Business/Operations Rules Logic, Scripting, and Custom Forms/Screens Building Tools  
Raintree Application Encryption.

## CONNECTIVITY TO THIRD PARTY GENERAL LEDGER APPLICATIONS

Raintree can interface with all modern and industry standard general ledger applications including Peoplesoft™, Great Plains™, Quick Books Pro™, Peachtree™ and Soloman™. We do not have prepacked interfaces to any general ledger accounting systems.

**RR-F-07** Describe your firm's experience and approach to the conversion of electronic behavioral health data.

Raintree has a long history with data conversions and years of experience importing data from legacy applications. Raintree can provide a data conversion provided certain criteria are met, and the data is provided to Raintree in a readable file format. Data should be provided in a MS Excel, Access or other tab or comma delimited format. Raintree can convert Patient Demographic Data, Insurance Profile Data, and Ledger Balance forward data.

The Import Wizard is a tool built into the application for importing data from other programs. You can, for example, update tables by importing the data and therefore there would be no need to key the information in manually. The wizard can read delimited or space-aligned formats. You can save configuration files from previous imports for future use. Note that selecting a predefined configuration does not prevent you from making the necessary changes. All wizard steps will be prefilled according to the configuration, but you can make modifications at all times. Some conversions require data clean up in order to have quality data in the new system.

To test the conversion we will create a test bed based on the Standard Raintree Application. This system will be used to test loading data and the creation of data. Where possible, testing needs to be done with actual files. Given the lack of documentation of most legacy systems it's impossible to create adequate create test files and test cases that simulate even a fraction of the data conditions found in actual production files. This test bed will also be used to create

sample output files using the actual data. Testing output files depend on the ability for the target systems to accept test data. Where the target system does not support testing output files will be hand checked to correctness.

During acceptance testing after we have loaded the fully converted data into the test system we can perform some limited parallel testing. Dumps of output files, in human readable formatted reports, can be used to hand check output files where the target system does not support testing.

**RR-F-08** Describe your firm’s experience and approach to the conversion of paper-based behavioral health data.

Raintree is compliant with industry standard Optical Character Recognition (OCR) applications and has completed several OCR data conversions over the years.

**RR-G-01** Please provide the following information about the solution product(s) that you propose.

#	Product Name And Primary Function	When First Developed	When / Where First Deployed	Number Of Installations To Date
1	Raintree Behavioral Health and Human Services Manager (Modules include client/patient registration, scheduling, workflow management, document scanning and storage, electronic health records, e-prescribing, billing/collections and outcomes reporting and financial reporting)	2001	Washington State (North Sound Region)	Raintree currently has deployed its behavioral health and human services applications within 25 distinct organizations including counties, state agencies, community mental health centers and private provider groups.

**RR-G-02** For each solution product listed in the above table, please provide:

1. The history of the product including whether the product was internally developed or acquired from another source.

All product modules listed above were developed by Raintree Systems, Inc. with the guidance of industry experts. One of Raintree’s true differentiators is the ability for customers to customize rules, screens, forms, reports etc to their Raintree Applications. This both significantly reduces costs and provides the customer with autonomy from Raintree in the event it wants to develop unique product features and reports. Our enterprise-wide customization can be set up to bring up custom forms, trigger rules or run reports by user ID, credentialing, event/limits, location and security level. There are some customers who do not desire to develop their own customization. These customers also benefit from our product’s flexibility as the product enhancements/customization typically cost a fraction of what our competitors charge for new screens, forms, rules and reports.

Raintree Systems, Inc. has an established history in the healthcare management industry. Our company was originally founded as a billing service bureau in 1983 and was built in a mini-computer platform. This allowed Raintree to deploy the product in hundreds of offices from just a few servers with very low bandwidth modem connections.

In the mid eighties, Raintree recognized MS DOS and the explosion of PCs into healthcare provider offices as the wave of the future. Raintree developed its practice management products to run on the MS Operating Systems. Raintree's Product Development Team made the ability to deploy Raintree across multiple clinics within an organization a key objective throughout its development history. Because Raintree was designed with flexibility/customization as a top priority, we were able to expand to thousands of provider companies in over fifty vertical healthcare markets throughout the United States.

Since the mid 1990s, Raintree has focused most of its marketing and implementation resources on large-scale implementations including county health departments. During this time period, Raintree's customer base expanded to very large provider groups (hundreds of locations), billing services and County

Health Departments on the west coast. Over the last 6 years, Raintree has developed a MySQL database application that uses all of the modules and tools available in previous versions of the application. Over this time period, Raintree both integrated with many HL7 and SOAP XML compliant EMR applications and developed its own EMR module for certain vertical healthcare markets. During this period, Raintree developed report server technology allowing for enterprise wide roll-up reporting capable of capturing data from hundreds of clinic locations.

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2. The specific Industry standards that the product was designed to, including any exceptions to those standards.

Raintree is a 3 tier architecture ultra-thin-client application that is written in Delphi 7. Raintree is an Ultra-Thin-Client Application that is comprised of three distinct technology layers. These are the server, agent and client applications. The Raintree Server component is placed on the file server. It runs as a service and coordinates user login, encryption and agents. The Server component runs under MS Windows 2000, Windows XP and 2003 Operating Systems. The Agent component is also located on the file server. It is dynamically loaded and unloaded by the Server software in response to user requests made over a simple TCP/IP connection. A separate agent is created for each client connected to the file server. The agent connects the client to the database and manages all data transfers. Since each agent is a separate process, Raintree takes advantage of and benefits from multi-CPU servers. Load Balancing is a built in Raintree feature that gives performance priority to end-users when reports and queries are run in the system. This ensures that users are not stalled when navigating or processing information in the application.

The Client component runs on the user's workstation computer. This application provides all the user interface functionality. The client runs under MS Windows 2000, XP and later versions. The client component is a single compact executable that is designed for zero administration, including automatic client exe updates. Because all security management processes reside on the Raintree Server, minimal maintenance of any kind is required on the Raintree Client executable.

The Raintree Server and Agent components are located on the same physical machine as the

database, the bandwidth requirements for Raintree are minimal. In fact, workstations at a remote facility can be run over dial-up and wireless cell phone Internet connections without a decrease in performance. With Raintree, the only thing that's transmitted between the server and the workstation is the actual content.

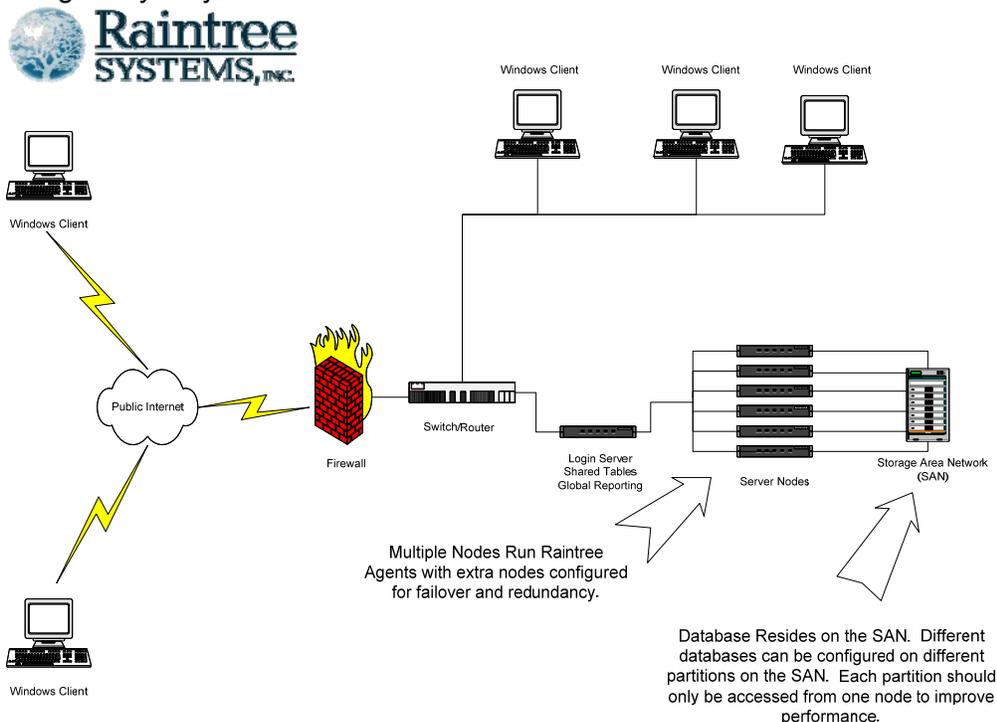
All data transferred over a network is compressed and secured using HIPAA compliant encryption. Firewalls, VPNS, and other such security measures are not required to operate Raintree securely over a WAN. We do recommend that our customers maintain firewalls to protect their other network applications. Raintree does not depend on any DLLs or Runtimes, so application maintenance and support can be completed efficiently by Raintree and its customers.

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## SCALABILITY OVERVIEW

Raintree allows for an unlimited number of concurrent users. Each active agent requires around 13MB of memory on the server. If we inflate that to 15MB for a safe cushion we can see the memory requirements of around 3.7GB, 7.4GB, and over 14.8GB of RAM. The first 2 scenarios would be feasible on a single machine.

Raintree also can be run in a clustered environment to load balance the agents on different nodes. The backend database can be put on a SAN for scalability. This method allows separately adding nodes for processing when more agents are required and adding drive space to the SAN as the database grows. Raintree is using this model with a client (one of the largest in their specialty) that currently has hundreds of location. Another consideration is whether users need the appointments all in one database. It may make sense to have separate databases for different regions. This could reduce capital equipment expenses with a different architecture. Keep in mind the Raintree security can be shared across multiple databases even though they may be distributed across different servers.



EASE OF PRODUCT DEPLOYMENT AND SCALABILITY - Raintree is an extremely easy application to deploy over a wide area network. Our application can be deployed via low bandwidth connections without the need for Citrix™ or other expensive WAN third party applications. It can even function at the old 28/8 or lower speed. This eliminates the risk of hiring a distributed workforce that may involve employees or clinics located in rural areas where only a dial-up or less connection is available. Raintree is not dependent on DLLs or Runtimes. Raintree has been developed to be an Enterprise-Wide Application. Raintree provides both the deployment scalability and roll up (to regions and corporate) reporting features. If CRS elects to host their own Raintree Server, it will take its internal IT approximately 2 hours to complete the server side installation. The installation of the 2 MB Workstation Executable takes between 1 and 3 minutes to complete. It is common for our customers to simply send out download instructions to their users and to provide a link to the workstation executable on their employee website or BBS.

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### 3. Whether the product is CCHIT certified

As of this date, Raintree is not CCHIT-certified; however our company's business development department is preparing to pursue certification in calendar year 2009. Raintree does complete annual Sarbanes-Oxley Type II (SAS 70) certifications for compliance with both public and private customer organization's requirements. Our product's architecture allows our customers to only use those fields and functions that they need to complete their operational requirements. In other words, the end user is not forced to complete a lot of data entry that is not required for the type of service rendered. Our customers are choose Raintree due to our ability to configure our products to meet their requirements without the need for work-around processes. Raintree minimizes the time front office, back office and clinical staff have to input information into the application as they are not confined to a generic set of workflows as conceptualized by outside organizations.

Here is an overview of Raintree's SAS 70 Type II Report

Statement on Auditing Standards (SAS) No. 70, *Service Organizations*, is an internationally recognized auditing standard developed by the American Institute of Certified Public Accountants (AICPA). A SAS 70 audit or service auditor's examination is widely recognized, because it represents that a service organization has been through an in-depth audit of their control activities, which generally include controls over information technology and related processes. In today's global economy, service organizations or service providers must demonstrate that they have adequate controls and safeguards when they host or process data belonging to their customers. In addition, the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 make SAS 70 audit reports even more important to the process of reporting on effective internal controls at service organizations.

SAS No. 70 is the authoritative guidance that allows service organizations to disclose their control activities and processes to their customers and their customers' auditors in a uniform reporting format. A SAS 70 examination signifies that a service organization has had its control objectives and control activities examined by an independent accounting and auditing firm. A formal report including the auditor's opinion ("Service Auditor's Report") is issued to the service organization at the conclusion of a SAS 70 examination.

SAS 70 provides guidance to enable an independent auditor ("service auditor") to issue an opinion on a service organization's description of controls through a Service Auditor's Report

(see below). SAS 70 is not a pre-determined set of control objectives or control activities that service organizations must achieve. Service auditors are required to follow the AICPA's standards for fieldwork, quality control, and reporting. A SAS 70 examination is not a "checklist" audit.

SAS No. 70 is generally applicable when an auditor ("user auditor") is auditing the financial statements of an entity ("user organization") that obtains services from another organization ("service organization"). Service organizations that provide such services could be application service providers, bank trust departments, claims processing centers, Internet data centers, or other data processing service bureaus.

In an audit of a user organization's financial statements, the user auditor obtains an understanding of the entity's internal control sufficient to plan the audit as required in SAS No. 55, *Consideration of Internal Control in a Financial Statement Audit*. Identifying and evaluating relevant controls is generally an important step in the user auditor's overall approach. If a service organization provides transaction processing or other data processing services to the user organization, the user auditor may be required to gain an understanding of the controls at the service organization.

a. If the product is CCHIT certified, for which category and year is it certified? Examples would be "Ambulatory 2006", "Ambulatory 2007", etc.  
NOT APPLICABLE

b. If the product is not CCHIT certified, do you plan to acquire CCHIT certification and if so, in which category and when?

Raintree is preparing for the Ambulatory certification process within calendar year 2009.

**RR-G-03** How are enhancement and new release priorities determined?

Raintree maintains a product enhancement committee which meets every Monday morning. The committee chairman is Raintree's Chief Technology Officer. Other members of the committee include lead Product Engineers, the product Quality Assurance Manager and the Division Directors. The product enhancement committee received regular product enhancement requests from the operations divisions, customer users groups and sales and marketing. Major product enhancements are scheduled on semi-annual basis and minor updates are released quarterly. Product updates are prioritized by the committee based on feedback from customers, users groups and the Raintree Operations Divisions.

**RR-G-04** How are clients supported during the release of an enhancement?

Raintree Customers are supported during the release of new application enhancements by our company's Customer Service Department. Global releases (i.e. available to all customers) Raintree Software Products are updated on a quarterly basis. Updates are made to the core executable and will not affect customization done by Raintree, or the end users. Updates are not executed until they have passed a rigorous QA process, and have received approval from a designated client representative. The client component is a single compact executable that is designed for zero administration, including automatic client exe updates. Raintree pushes the

client update out to the end users automatically. Verification can be conducted to ensure that all users are on the current version by use of our system monitor feature. Users with appropriate permissions can see the status of all users logged into the Hosted system.

**RR-G-05** Describe the size of the installed base of your solution. Include the number of users and the number of sites where the product is installed.

Raintree has over 2,000 installations within 47 states and Canada. The installations comprise over 15,000 licensed concurrent users.

**RR-G-06** Describe any regularly-held seminars or user group meetings available to users of your product and the time/place of the next gathering.

Raintree completes regular Technical Training Seminars throughout the year. Customers who attend Raintree Technical Training Seminars are taught how to modify fields, screens, forms, reports and application rules. The training is completed over two days and occurs once per month, excluding December. The next scheduled Technical Training Seminar will take place on January 22<sup>nd</sup> and 23<sup>rd</sup>, 2009.

## Software Technologies

**RR-H-01** Provide the technologies used for each solution product identified above.

#	Product Name	Product Type (Client Server, Web, Etc.)	Operating System (Windows, Unix, Linux, Etc.)	Database (SQL Server, Oracle, DB2, Etc.)	Application Language (VB6, VB.Net, C, C++, C#, Java Etc.)
1	Raintree Human Services Manager	Ultra-Thin Client and Software as a Service	Windows and/or Linux (Customers' Option)	MySQL	Delphi Version 7

## Server Hardware Minimum Specifications

**RR-H-02** In the following table, please provide the minimum server hardware technical specification levels for operation of your solution software products. Please consider all types of possible servers such as: database, fax, email, internet, backup, image management, etc.

#	Primary Server Purpose	Number Of Processors Per Server	Processor Type/Speed (MHz)	Memory (Gig)	Storage (Gig)
1	Raintree Application and Reports Server	2 x Quad Core Intel® Xeon®	2x6MB Cache, 3.33GHz,	8GB 667MHz (2x4GB),	6 x 300GB 15K RPM Serial-Attach SCSI

(Same Server) Dell PowerEdge 2950 III or equivalent  Windows Server® 2003 R2, Enterprise Edition with SP2	E5450,	1333MHz FSB	Dual Ranked DIMMs (memory)	3Gbps 3.5-in HotPlug Hard Drive  300 GB Partition in a SCSI-based RAID1 or RAID5 array or better
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## Client Hardware Minimum Specifications

**RR-H-03** In the following table, please provide the minimum client hardware technical specification levels for operation of your solution software products. Please consider all types of client types including workstations, tablet PCs, PDAs, etc.

#	Type of Client Hardware	Operating System	Processor Type / Speed (MHz)	Memory (Gig)	Browser Level (If Applicable)	Required Disk Space (If Applicable)
1	Pentium 4 or newer workstation	Microsoft XP or VISTA	Intel Dual Core 2.66GHz	2 GM		80GB
2	Pentium 4 or newer Tablet PC	Microsoft XP or VISTA	Intel Dual Core 2.66GHz	2 GB		80GB

## Peripheral Hardware Minimum Specifications

**RR-H-04** Provide the minimum peripheral hardware technical specification levels for operation of your solution software products. Please consider all types of peripherals such as printers, scanners, card readers, notepads, etc.

#	Type Of Peripheral Hardware	Operating System (If Applicable)	Specifications/Characteristics
1	Network printer windows compatible	Windows Compatible	Raintree is compliant with any Windows environment compliant printer.
2	Network based or local scanners	Windows Compatible	Raintree is compliant with any TWAIN compliant scanner.

## Minimum Network/Communication Specifications

**RR-H-05** Provide the minimum network/communication technologies employed by your solution software products.

#	Type Of Network/Communication Technology	Operating System (If Applicable)	Specifications/Characteristics
1	TCl/IP over 100Mbps Ethernet connection		

## System Backup/Recovery Considerations

**RR-H-06** Describe the system backup process for your core product.

The Raintree System is backed up using point in time snapshot of the file system. We use Windows Volume shadow copy to create snapshot of file system and back it up using industry standard backup products.

**RR-H-07** Can backup be completed in a dynamic mode so that the system can be operational 24 hours per day?

Backups can be completed dynamically without end users having to exit the Raintree Application. This enables users to access the application 24 hours per day.

**RR-H-08** Describe any automated backup features that allow rapid and unattended backups of system and operational data on a user-scheduled basis.

System can be backed up using Rsync. Rsync is an open source utility that provides fast incremental file transfer. Rsync is freely available under the GNU General Public License. Rsync can be scheduled to run on an automated basis.

**RR-H-09** Can the system be configured to support improved fault tolerance and system recovery (e.g., mirrored disk drives/servers)?

Typically the server is running a RAID array for redundancy on the disk drives. A mirrored server can be configured to allow fail over to a "standby" server in case of primary server failure.

## Data Archiving Considerations

**RR-H-10** What are the capabilities for archiving data?

Due to Raintree's data compression standards, Raintree customers are not required to archive data. Customers who do elect to archive data are able to use Raintree's import and export utilities and/or ODBC tools to export and store data from the MySQL database. Additionally, Raintree can automate archiving processed by use of form scripts. This is configured upon request by customer.

**RR-H-11** What are the capabilities for restoring archived data?

Raintree is able to return archived data with reverse import logic scripts. This is also completed upon request by customer.

**RR-H-12** What tools/media are used for archiving data?

Raintree uses its forms scripting language to archive data.

## System Interface Considerations

**RR-H-13** Describe your overall approach to developing, testing, implementing, and upgrading system interfaces to other third-party systems. Describe the process you use to settle disputes over interfaces between your solution and others.

Raintree is compliant with the following industry standard protocols including, but not limited to: HL7, XML (SOAP), ANSI 270, 771, 277, 837,835,240,241. Raintree has met all published HIPAA requirements and uses Blowfish encryption technology. Raintree has completed 3 independent Sarbanes-Oxley Type II Audit Certification (SOX), the most recent of which was completed in the 4<sup>th</sup> Quarter of 2007. We will provide this report upon request when the final version is completed and approved.

Raintree has a built-in import and export utility that is able to import and export data from any comma or tab delimited spreadsheet or application. In addition to the ANSI interface capabilities within Raintree, Raintree is able to import and export data via the following utilities:

ODBC - This API is used to access the backend database (MySQL).

Microsoft's HL 7 (COM and DCOM) - This API is used for exporting and importing data between Raintree and other applications such as General Ledger applications.

Simply Object Access Protocol XML (SOAP XML) - This API is used for exporting and importing data between Raintree and other applications such as General Ledger applications.

PHP - Business/Operations Rules Logic, Scripting, and Custom Forms/Screens Building Tools  
Raintree Application Encryption.

Raintree complies with the interfacing standards as requested by 3<sup>rd</sup> party applications. Due to our open architecture and flexible interfacing capabilities, we have not failed in completing an interface in our 25 years of experience in building interfaces with complimentary products.

If 3<sup>rd</sup> party products do not support industry standard interfaces, we can export and import data to and from Microsoft Office Products. All reports generated by Raintree can be directly exported to MS Excel. This is done by simply right clicking on the report and selecting the "EXPORT TO EXCEL" option. All report data is automatically displayed within Excel and divided within the appropriate rows and columns to allow for easy access and sorting navigation. This data can then be imported into Access using the Excel import feature. Raintree letters can be generated in a full rich text editor and distributed from Raintree using email or the message control center. Any user can also use Word, Access or Excel to generate letters, spreadsheets or reports and then copy or save the contents into the Raintree database.

**RR-H-14** With what version of HL7 is your product compliant?

Raintree is compliant with the all recent versions of HL7 (currently Version 2.6).

## **Data Security Considerations**

**RR-H-15** Discuss your approach to data/information security, especially with regards to

Internet technologies. What level of encryption and authentication is supported?

## Overview of the Raintree's HIPAA-Compliant Security Controls and Features

A major concern within the healthcare industry is the security and privacy of health records and their transmission between healthcare providers. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) outlines federally mandated guidelines that providers must follow to address issues ranging from patient confidentiality and health insurance, industry reform to administrative streamlining and simplification.

Raintree Systems management software meets HIPAA compliance requirements and all existing state and federal laws and regulations relating to the transmission, storage and access of records and other client/patient data to maintain the security and confidentiality of patient information. Key application components:

- Encrypted security controls ensure patient confidentiality and meet federal, state and HIPAA compliance requirements
- Controlled access and usage rights for administrator-defined groups, individual users or a custom set of strict user and usage criteria
- Trails auditing and reporting functionality provides a chronological record of system resource usage including user login and file access
- Utilizes standard code sets, identifiers and security when submitting medical claims electronically via the HIPAA-compliant ANSI ASC X12N standard format
- HIPAA-compliant 128-bit encrypted remote-access security controls
- HIPAA ANSI ASC X12N-standard electronic claims and forms submission using standard code sets, identifiers and security
- Tracking, recording and reporting of logins/users, workstations, dates, times and accessed information
- Advanced features for fault-tolerant authentication and access control
- HIPAA-compliant transfer of protected health information

Relevant HIPAA Requirements and applicable Raintree Systems Features:

HIPAA Requirement	Description	Applicable Raintree Healthcare Management Software Feature or Option
<b>Data backup and disaster recovery</b>	<p><u>Data backup:</u> Mission-critical data must be stored/backed up simultaneously on- and off-site for a high probability of disaster survival</p> <p><u>Disaster recovery:</u> An organization should develop a complete plan for data backup and disaster recovery to be able to quickly recover/restore data in the event of an emergency.</p>	Raintree's Application Service Provider (ASP) Solution includes hosting of your organization's data offsite with incremental and complete backups scheduled and performed on a routine basis. Data can be easily recovered from backup media and a custom disaster recovery plan can be developed upon request
<b>Password</b>	Requires an organization to	Encrypted user logins and

<b>management</b>	utilize multiple password checks and balances. Some examples include: the use of "strong" passwords; automatic idle-time log-offs requiring passwords to be re-entered; restricted access based on user classifications; coupling of a network login with additional application logins	administrator-defined login and usage controls protects against unauthorized access
<b>Audit Trails and Reporting</b>	A chronological record of system resource usage that includes user login, file access and whether any security violations occurred	Tracking and reporting functionality can provide real-time access to system resource usage records - including user login and file access
<b>Alarms</b>	Devices that can sense an abnormal condition within the system and provide, either locally or remotely, a signal indicating the presence of an abnormality	Integrated rules-based scheduling triggers and alerts are included in all modules of the Raintree Systems solution
<b>Electronic Communications Security</b>	Requirements for message authentication, integrity control, access control and encryption	Raintree Systems utilizes standard code sets, identifiers and security when submitting medical claims electronically via the HIPAA-compliant ANSI ASC X12N standard format
<b>Policies and Procedures</b>	HIPAA requires the creation and maintenance of business policies and procedures that must be available for viewing by those they affect. Also requires formal training on these for all employees	Since the Raintree solution is customized for each organization's workflow (i.e. policies and procedures), a written and/or visual summary can be posted within the application for easy access. In addition, Raintree Professional Services offer training options as well.

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### End-User Network Access Security

Security within the system is menu driven. Menus are used to determine which programs a user can access and what level of access they have. It is the responsibility of the customer to dictate the level of access to be granted to each employee by Raintree during the creation of (or change to) a system account. In addition, periodic reviews of proper segregation of duties are the responsibility of the Raintree customer.

The secured login is managed based upon an access security profile designed with the user organizations that may vary by individual or job category. Accessibility can be set by job responsibility, data sensitivity, etc. Thus, a Manager will have a different profile than that of a

staff employee, and each profile is configurable by the client's overall security administrator.

In all Raintree products, the IDs and passwords assigned by the registration processes require each user to provide login information that is defined by Raintree's client(s). The Raintree system validates user provided data against Raintree's security table before each new session. Each end-user must use the preset initial security login process to receive a login. The transactions are validated via the Raintree system's security database.

Clients using the web-based products connect to the Raintree web servers using secure hypertext transport protocol (HTTPS). HTTPS assures that all client data is transmitted using Secure Socket Layer (SSL) that generates a 128-bit certificate utilizing a 1028-bit key. Raintree maintains Secure Server ID certificates (from an internationally recognized certification authority) on the servers that web-product client's access, thus assuring the clients that their data transmissions are protected.

Raintree's network includes a tightly constrained firewall that prevents all but two types of requests from reaching the web application servers and prevents all outside traffic from reaching the database servers. Each user account is password protected. Raintree automatically logs out the user after a pre-determined period of inactivity, and then automatically disables logins after a fixed number of consecutive failed attempts.

Raintree's security system is an enterprise level solution in addition to the standard web SSL. Its security system provides reporting and a logging facility to support security auditing and potential security breach analysis. All activity executed by a user utilizing a Raintree login within the system is tracked and reported through security audit information available throughout the Raintree product.

## **Data Encryption**

Raintree's Application TCP encryption relies on RSA for exchanging data stream encryption keys and Blowfish for encrypting the live traffic between the service and the client. The RSA cryptosystem is a public key cryptosystem that offers both encryption and digital signatures.

Blowfish is a symmetric block cipher that can be used as a drop-in replacement for DES or IDEA and takes a variable-length key, from 32 bits to 448 bits. Blowfish is unpatented and license-free, and is available free for all uses. Raintree utilizes Blowfish over RSA, DES, IDEA, or RC5 for live traffic encryption and its low requirements for resources and high security standards.

Raintree clients connect to the server and receive a unique minimum 128-bit encryption key utilizing RSA encryption and signature. RSA requires significant resources but is ideal for exchanging and signing encryption keys. The Client sends the server a test packet using Blowfish encryption with the newly received encryption key. Raintree Service confirms the validity of the verification packet. After successful authentication, all communication between the client and the service from this point forward is encrypted. Depending on the configuration, the Raintree service will renew the encryption key after a determined period of time.

The HIPAA Security Rule (45 CFR Parts 160, 162, and 164) requires covered entities to ensure the integrity, availability, and security of protected health information (PHI) stored or transmitted in electronic form. As a business associate of covered entities and as a caretaker of those entities' electronic PHI, Raintree Systems, Inc. is under legal obligation under the HIPAA

Security Rule, which requires a periodic evaluation of an organization's security measures

All data transferred over a network is compressed and secured using HIPAA compliant encryption. Firewalls, VPNS, and other such security measures are not required to operate Raintree securely over a WAN. We do recommend that our customers maintain firewalls to protect their other network applications. Raintree does not depend on any DLLs or Runtimes, so application maintenance and support can be completed efficiently by Raintree and its customers.

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### **General Overview of Raintree's Encryption Technology:**

- 1) Raintree's Application TCP encryption relies on RSA for exchanging data stream encryption keys and Blowfish for encrypting the live traffic between the service and the client. The RSA cryptosystem is a public key cryptosystem that offers both encryption and digital signatures.
- 2) Blowfish is a symmetric block cipher that can be used as a drop-in replacement for DES or IDEA and takes a variable-length key, from 32 bits to 448 bits. Blowfish is unpatented and license-free, and is available free for all uses.
- 3) The reason Raintree utilizes Blowfish over RSA, DES, IDEA or RC5 for live traffic encryption is its low requirements for resources and high security standards. RSA on the other hand requires significant resources but is ideal for exchanging and signing encryption keys.

### **Raintree Authentication and Traffic Encryption Scheme Details:**

- 1) The Raintree Client connects to the server and receives a unique 128 - 1024 bit encryption key using RSA encryption and signature.
  - 2) The Raintree Client sends the server a test packet using Blowfish encryption with the newly received encryption key.
  - 3) The Raintree Service confirms the validity of the verification packet. If successful, all communication between the client and the service from this point on will be encrypted.
  - 4) Depending on the configuration, the Raintree Service will renew the encryption key after a determined time.
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### **Security Test Procedure**

At the intervals specified in the Security Test Procedure, tests are carried out under the direction of the HIPAA Compliance Officer and Information Security Officer. The Information Security Officer ensures that the testing performed is technically appropriate. It is the responsibility of the HIPAA Compliance Officer to ensure that the tests meet HIPAA regulations.

After each test, the Information Security Officer and HIPAA Compliance Officer evaluate, determine, and document what security vulnerabilities are exposed in the test, what security breaches occurred because of those vulnerabilities, how to report security breaches discovered, what systems might be put in place to mitigate those risks, which risks are acceptable given

Raintree's current risk posture, and which risks must be remedied, which measures are most appropriate to mitigate those risks which require remediation, and how to implement those remedial measures.

## Scalability Considerations

**RR-H-16** Describe your product's ability to expand to accommodate increasing numbers of users, servers, etc.

Raintree allows for an unlimited number of concurrent users. Each active agent requires around 13MB of memory on the server. If we inflate that to 15MB for a safe cushion we can see the memory requirements of around 3.7GB, 7.4GB, and over 14.8GB of RAM. The first 2 scenarios would be feasible on a single machine.

Raintree also can be run in a clustered environment to load balance the agents on different nodes. The backend database can be put on a SAN for scalability. This method allows separately adding nodes for processing when more agents are required and adding drive space to the SAN as the database grows. Raintree is using this model with a client (one of the largest in their specialty) that currently has hundreds of location. Another consideration is whether users need the appointments all in one database. It may make sense to have separate databases for different regions. This could reduce capital equipment expenses with a different architecture. Keep in mind the Raintree security can be shared across multiple databases even though they may be distributed across different servers.

Raintree is an extremely easy application to deploy over a wide area network. Our application can be deployed via low band-width connections without the need for Citrix™ or other expensive WAN third party applications. It can even function at the old 28/8 or lower speed. This eliminates the risk of hiring a distributed workforce that may involve employees or clinics located in rural areas where only a dial-up or less connection is available. Raintree is not dependent on DLLs or Runtimes. Raintree has been developed to be an Enterprise-Wide Application. Raintree provides both the deployment scalability and roll up (to regions and corporate) reporting features. If CRS elects to host their own Raintree Server, it will take its internal IT approximately 2 hours to complete the server side installation. The installation of the 2 MB Workstation Executable takes between 1 and 3 minutes to complete. It is common for our customers to simply send out download instructions to their users and to provide a link to the workstation executable on their employee website or BBS.

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## MySQL DATABASE OVERVIEW

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Raintree utilizes the MySQL Database. Raintree's Database is open source (MySQL) so our customers do not pay for their application's back end database. This represents a considerable savings for our customers. Below we have provided a description of MySQL:

MySQL is a SQL relational database engine produced by MySQL AB with its U.S. headquarters in Seattle, WA. The software has more than 4 million active installations worldwide, with 30,000 copies installed every day. Major corporations such as Google, Yahoo!, Cisco, NASA, Lucent Technologies, Motorola, Hyperion, and Sony Pictures rely on MySQL. MySQL today is used in

a wide range of database applications, including Web databases, e-commerce applications, data warehousing, logging applications and distributed applications. MySQL is also increasingly embedded in third-party software and other technologies.

Why did we choose MySQL for our back end database? Before deciding, we spent months testing different database engines. We tested by running the engines with hundreds of millions of records. MySQL simply had the best performance. MySQL does lack some whistles like stored procedures and triggers, but this makes it faster than its competitors, as there is no overhead of expensive features. Because Raintree's source code does support stored procedures and triggers, this was not an issue. MySQL is extremely easy to distribute and install. Most programming tools and reporting tools support MySQL databases. If not supported directly, ODBC may be used as a bridge.

MySQL is an open source software but Raintree is distributing it under commercial license. Since MySQL source is available freely to Raintree, we have people working full time on MySQL customization and support, as Raintree is the author of several improvements to MySQL, including instant table altering (adding fields) without table rebuild and automatic record history. More information is available at [www.mysql.com](http://www.mysql.com)

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## SYSTEM PERFORMANCE

Raintree is an ultra-thin-client web enabled application. It is not a browser based web application, so it is not plagued with bandwidth limitations. Because the Raintree Server and Agent components are located on the same physical machine as the database, the bandwidth requirements for Raintree are minimal. In fact, workstations at a remote facility can be run over dial-up connections without a decrease in performance. With Raintree, the only thing that's transmitted between the server and the workstation is the actual content.

The Agent component is also located on the file server. It is dynamically loaded and unloaded by the Server software in response to user requests made over a simple TCP/IP connection. A separate agent is created for each client connected to the file server. The agent connects the client to the database and manages all data transfers. Since each agent is a separate process, Raintree takes advantage of and benefits from multi-CPU servers. Load Balancing is a built in Raintree feature that gives performance priority to end-users when reports and queries are run in the system. This ensures that users are not stalled when navigating or processing information in the application.

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**RR-H-17** Provide any performance metrics that describe the maximum load(s) under which your system can continue to perform at an optimum level

Due to Raintree's ability to cluster servers and Raintree's Reports Server architecture, there is not a maximum load in terms of transactions or number of users that can utilize the application at an optimum performance level.

**RR-H-18** It is possible that many counties will want to work with the same vendor. How would your company mitigate the impact from potentially high-volume purchases from multiple counties in California? Include in your answer the need to hire additional staff, increase locations and the possible impact to implementation and training schedules, and problem response times.

Raintree has experience with implementing multiple counties concurrently within the same state as we have completed in the State of Oregon. Raintree's approach to dealing with concurrent high volume software and services purchases is to complete an initial Needs Assessment, Specifications and Project Plans which scope the level of service required during implementation and post the go-live period. Based on the implementation, configuration and training specifications and requirements, Raintree designates the proper resources to the associated projects. If necessary, Raintree would hire additional personnel resources from within the industry to either provide direct service or reallocate other customer requirements to free up additional Raintree resources.

## I. Behavioral Health EHR Functional Requirements Survey

**RR-I-01** Please complete the CA BH-EHR Functional Requirements Survey (an Excel spreadsheet) that accompanies this RFI. **The Functional Requirements Survey is part of this RFI and must be completed.**

## Functional Requirement Survey Categories

The CA BH-EHR Functional Requirements Survey contains the functional requirements for each of the following DMH Integrated Information System Roadmap Categories:

**1. Infrastructure**

**2. Practice Management**

**4. Computerized Provider Order Entry (CPOE)**

**5. Electronic Health Record (EHR)**

**6. Personal Health Record (PHR)**

Descriptions of the DMH Integrated Information System Roadmap Categories are provided in the Preface (Section A) of this document. The following table summarizes the number of functional requirements within each of the DMH Roadmap Categories. Descriptions of the Functional Requirement Categories are available in the spreadsheet.

DMH Roadmap Category	Requirement Category Number	Functional Requirement Category Name	Number of Requirements	Total per Roadmap Category
1 Infrastructure	F35	Enforce Confidentiality	5	5
	F36	Data Retention, Availability, and Destruction	8	8
	F37	Audit Trails	3	3
	F38	Extraction of Health Record Information	4	4
	F39	Concurrent Use	4	4
	F43	Administrative Workflows / EHR Support	10	10
	S01	Security: Access Control	12	12
	S02	Security: Authentication	14	14
	S03	Security: Documentation	1	1

	S04	Security: Technical Services	12	11
	S05	Security: Audit Trails	7	7
	S06	Reliability: Backup/Recovery	4	4
	S07	Reliability: Documentation	9	8
	S08	Reliability: Technical Services	3	3
<b>2 Practice Management</b>	F01	Identify and Maintain a Client Record	11	11
	F02	Manage Client Demographics	11	11
	F15	Manage Consents and Authorizations	2	2
	F15a	Manage Patient Advance Directives	3	3
	F20	Support Non-Medication Ordering (Referrals, Care Management)	3	3
	F24	Inter-Provider Communication	1	1
	F26	Provider Demographics	3	3
	F27	Scheduling	5	5
	F28	Report Generation	25	24
	F30	Service/Treatment Management	3	3
	F31	Rules-Driven Financial and Administrative Coding Assistance	6	6
	F32	Eligibility Verification and Determination of Coverage	9	9

	F33	Manage Practitioner/Client Relationships	4	4
	F40	Mandated Reporting	10	10
	F41	Administrative A/P EHR Support	14	14
	F42	Administrative A/R EHR Support	34	32
	F43	Administrative Workflows EHR Support	18	17
<b>3 Clinical Data Management</b>	F03	Manage Diagnosis Lists	8	7
	F04	Manage Medication Lists	13	12
	F05	Manage Allergy and Adverse Reaction Lists	7	5
	F06	Manage Client History	2	2
	F07	Summarize Health Record	1	1
	F08	Manage Clinical Documents and Notes	24	24
	F09	Capture External Clinical Documents	2	2
	F10	Generate Client Specific Instructions	5	5
	F14	Manage Results	3	3
	F16	Support Standard Care Plans, Guidelines and Protocols	1	1
	F17	Capture Variances from Standard Care Plans, Guidelines, and Protocols	1	1
	F19	Support Medication/Immunization Administration or Supply	5	5
	F21	Present Alerts for Disease Management, Preventive Services and Wellness	8	8
	F22	Notifications and Reminders for Disease Management, Preventive Services and Wellness	6	6
	F29	Health Record Output	5	5

	F30	Service/Treatment Management	3	3
	F34	Update Clinical Decision Support System Guidelines	2	2
	I04	Clinical Documentation	2	2
<b>4 Computerized Provider Order Entry</b>	F04	Manage Medication Lists	1	1
	F11	Order Medications	26	22
	F12	Order Diagnostic Tests	7	7
	F13	Manage Order Sets	3	3
	F14	Manage Results	4	4
	F18	Support for Drug Interactions	10	4
	F25	Pharmacy Communication	1	1
	I02	Imaging	2	2
<b>5 Interoperable EHR</b>	F06	Manage Client History	1	1
	F24	Inter-Provider Communication	1	1
	I01	Laboratory	5	5
	I02	Imaging	3	3
	I03	Medications	6	6
	I05	Clinical Documentation	9	9
	I06	Chronic Disease Management/ Patient Documentation	1	1
	I07	Secondary Uses of Clinical Data	4	4

	I08	Administrative & Financial Data	3	3
	I09	Clinical Trials	4	4
6 EHR with PHR	F06	Manage Client History	1	1
	F15	Manage Consents and Authorizations	1	1
	I03	Medications	1	1
	I04	Clinical Documentation	1	1
	I05	Chronic Disease Management/ Patient Documentation	3	3
		<b>Total Requirements</b>		<b>454</b>

### CA BH-EHR Functional Requirement Survey Responses

STEPS	INSTRUCTIONS
1	Rename the spreadsheet by selecting <b>File</b> , then <b>Save As</b> , then <b>appending "for " and your company name to the end of this filename</b> and selecting <b>Save</b> . The new file name should be: "CA BH-EHR Functional Requirements Survey for <your company name>.xls"
2	Complete the "Company Info" Tab.

3	Please respond to <u>all</u> of the requirements in <u>all 6</u> of the Functional Categories: <b>Infrastructure, Practice Management, Clinical Data, Computerized Provider Order Entry (CPOE), Electronic Health Record (EHR) and Personal Health Record (PHR)</b> . Descriptions of the available responses are provided below. Descriptions of the Functional Requirement Categories are provided on the <b>Descriptions</b> tab. For each requirement enter a 1 under the response that <u>best describes</u> your solution's ability to meet that requirement. <u>Respond to every requirement</u> even if your solution does not address a particular functional category. A response of "Not Addressed" has no negative connotation when the solution is not purported to provide that category of functionality. Please provide only <u>one response per requirement</u> . Multiple responses will be regarded as invalid. Use the <b>Summary</b> tab to see whether any functional category has missing or invalid responses.
Responses	Response Descriptions
<b>Existing</b>	The vendor's solution meets the functional requirement as an existing component of its base product without any effort over and above code table configuration. This response indicates that <u>no</u> programming customization is required to meet the requirement.
<b>Planned</b>	The vendor's solution does not <u>presently</u> meet the functional requirement, but an upgrade to the base product that will meet this requirement is planned <u>within the next 12 months</u> . This response indicates that <u>no</u> programming customization will be required to meet the requirement.
<b>Modification</b>	The vendor's solution does not meet the functional requirement, but will meet the functional requirement with a programming modification to the base product.
<b>Custom Development</b>	The vendor's solution does not meet the functional requirement with any level of modification to the existing code base. The vendor will meet this functional requirement by developing custom software.
<b>Third-Party</b>	The vendor's solution does not meet the functional requirement with any level of modification or customization, but will meet the functional requirement by integrating third-party solution(s). Identify the third-party vendor(s) and product(s) in the Comments.
<b>Not Addressed</b>	The vendor's solution does not and will not address this functional requirement.

**RR-J-01** Describe your suggested best-practice approach to implementing your solution. Please include details regarding data conversion and training, and how these activities contribute to your suggested approach.

## **Raintree Systems, Inc.'s Implementation Management Approach and Methodology**

Raintree's implementation management approach follows tried and true project management workflows and principles. We first identify the needs of our customers through a formal needs assessment process. We then work with the customer to document how the Raintree Application will be configured to meet their needs. Included within the needs assessment deliverables are the configuration specifications, project plan and training plan. We incorporate a combination of phone/Internet and onsite training throughout the go-live and post go-live sign-off processes.

### **An outline of the Raintree Implementation Experience is outlined below:**

**Needs Assessment** - Using a combination of existing documentation and personal interviews, Raintree staff document the proposed project. The onsite needs assessment allows Raintree staff to become familiar with both the organization and the complete scope of the project. Through an onsite needs assessment, known project activities are reviewed and all needed information gathered to enable specifications creation. As these items are reviewed, any additional business needs are identified.

**Specifications** - Based on the needs assessment, configuration specifications and a project plan are created for the upcoming project. Timelines, costing, and resources are finalized during an iterative process with the customer.

**Development** - The approved specifications are assigned out to the technical staff and the iterative process of development, quality assurance, and delivery is completed for each piece of functionality. During this time, key customer staff learns how to utilize standard Raintree functionality so that they can be involved in testing and configuration activities.

**Delivery** - As application component configuration is completed, modules are delivered to the organization for testing and approval. Any items requiring additional attention are returned to development, and all approved items are locked down.

**Training** - Prior to go-live, Raintree staff conduct classroom training, either for a group of super-users ("train the trainer") or for all staff as requested by the customer. Hands-on training allows the users to become comfortable using the software prior to go-live.

**Go-Live Support** - Raintree staff are onsite to support staff during the go-live process, answering questions and handling any issues that may arise.

**Ongoing Support** - Raintree provides ongoing 24/7 support for technical issues that may arise in the course of using the system.

Implementation Process Communication and Issue Resolution Overview:

### **Implementation Process Communication**

The Raintree Project Manager is the hub of the implementation. By ensuring that the Project Managers for both Raintree and the customer are kept informed of all project activities, both Project Managers meet regularly during the implementation process. Any identified issues are always included on the weekly project status report. These issues are reviewed by the implementation team during status calls and discussed to determine action plan and

responsibility for resolution. All issues remain on the status report until resolved to the satisfaction of both the Raintree and the customer Project Manager. In cases where an issue cannot wait for resolution until the status meeting, the Raintree Project Manager will initiate contact with the customer Project Manager (or vice versa) and come up with an interim action plan. Issues requiring escalation will be taken to the Raintree Division Director and the customer's management as appropriate.

## **Post Implementation Communication and Support**

After go-live issues are typically identified by end-users or administrators who note that functionality is not behaving as expected. Occasionally, changes to the core Raintree executables will have an effect upon existing functionality. In the latter case, Raintree staff will often note that a problem is potential or expected and take measures to mitigate it before updating an installation.

Issues which have been identified by the customer are usually reported by means of the Raintree Tasklist, a web-based issue tracking system. Once an issue has been created within the tasklist, it is evaluated by a project manager to determine if it can be replicated. Any extra information which is necessary, such as versions or example records for duplication is gathered and a recording displaying the error is created, if possible. The project manager then resolves the issue, if possible, or assigns it to an engineer if not. The engineer reviews the issue to determine whether it is a customization error or a product error and makes the necessary changes, usually to a test system. After making the changes, the engineer tests the solution and provides a test plan to the project manager before assigning the task back to the project manager. The project manager verifies that the solution does work, and usually copies the fix to another test system designated for customer testing, then assigns the original task back to the customer for testing. After the customer verifies that the fix will meet their needs, the fix is installed into the production database according to the change management procedures agreed upon by the customer and Raintree. Once the change has been installed into production, the customer closes the task to indicate acceptance of the fix. All tasks are reviewed by their assigned staff every day. All outstanding tasks are reviewed every week by the division director. Tasks which are taking too long to resolve (over 2 weeks) are automatically escalated to Raintree's management team to expedite the resolution.

## **Implementation Team Structure**

The Raintree Implementation Team consists of at least one Project Manager, a System Architect, Project Engineers, and a Software Trainer. The implementation team is overseen by the Division Director. The assigned Project Manager (PM) is responsible for coordinating and overseeing all project activities. Additional project managers may be included to assist with specialized sub-project roles, including data conversion and quality assurance activities.

The PM takes the tasks from the project plan and assigns the work out to appropriate team members (with guidance from the System Architect on technical tasks). The Raintree PM follows up on ongoing work through internal team meetings and our online tasklist management system. The PM reviews work assignments and task completion daily, keeping an eye out for any items that deviate from the project plan. As discrepancies appear, it is the PM's role to determine whether items require simple follow-up, involvement on the customer's part, and/or escalation to upper management. The PM also completes ongoing project documentation that is submitted to implementation teams and management for both Raintree and the customer organization. The PM is the first line of defense in keeping the project

within scheduled timelines and budget. As such, the PM meets regularly with both internal and customer staff and management to keep everyone apprised of project status.

#### Teamwork

No software development project can be completed in a vacuum. It is crucial to the success of any software implementation that Raintree staff work in conjunction with the customer's staff. To help facilitate communication, we make sure to complete an onsite needs assessment for all custom implementations. These few days onsite together enable team members from both organizations to begin developing rapport and an understanding of how the two organizations can work together to meet the needs of customer.

Regular communication is critical to the success of any development project. At a minimum, there are weekly status calls and written status reports submitted so that both Raintree and the customer are well-informed of project activities. However, Raintree project management staff is accessible to the customer's team during the full course of implementation. We do not shy away from the extra phone call to clarify any ambiguities. There's no need to wait a week for a status call for quick answers when a two-minute phone call can save much confusion.

In addition, Raintree encourages our customers to get involved in their own project. We have had several customers attend technical training seminars. Some of these customers have even been able to take on their own custom development over time, with occasional assistance from Raintree project engineering staff.

Raintree software is designed to be customizable, even beyond the initial implementation of the software. This means that as the business needs of the customer evolve over time, Raintree will be able to adapt the proposed software solution.

#### IMPLEMENTATION RISK MITIGATION OVERVIEW

In order to successfully implement any software project, all known risks must be managed and unknown risks identified as soon as possible. Risk management is an ongoing function and should be considered a part of standard project management. It is incumbent on both the Raintree and the customer to identify potential risks as soon as possible. Known risks can be managed; unknown risks can lead to ongoing issues.

As stakeholders and implementation team members notify the Raintree Project Manager of potential project risks, these are added to the risks section of the weekly status report. These risks are reviewed during each status call to determine if there have been any changes or activities that would impact or mitigate identified risks. Highest risk items are always reviewed to determine if any additional project modifications need to be implemented to mitigate the risk. Lower risk items may be removed from the ongoing tracking if agreed to by both the customer and Raintree.

If a critical risk item is identified, both Raintree's Project Manager and the customer is able to escalate the issue to management at any time. This can be done through written means or meetings.

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#### ISSUE RESOLUTION OVERVIEW

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During the implementation, the key to issue resolution is quick identification. The Project

Managers for both organizations are the hub of the implementation. By ensuring that the Project Manager for both Raintree and the customer are kept informed of all project activities, both individuals can quickly identify and resolve issues.

Identified issues are always included on the weekly project status report. These issues are reviewed by the implementation team during status calls and discussed to determine action plan and responsibility for resolution. All issues remain on the status report until resolved to the satisfaction of both the Raintree and the customer's project manager.

In cases where an issue cannot wait for resolution until the status meeting, the Raintree Project Manager will initiate contact with the Customer's Project Manager (or vice versa) and come up with an interim action plan. Issues requiring escalation will be taken to the Raintree Division Director and customer's management team as appropriate.

Issues which have been identified by the customer are usually reported by means of the Raintree Tasklist, a web-based issue tracking system. Once an issue has been created within the Raintree Tasklist, it is evaluated by a project manager to determine if it can be replicated. Any extra information which is necessary, such as versions or example records for duplication is gathered and a recording displaying the error is created, if possible. The project manager then resolves the issue, if possible, or assigns it to an engineer if not. The engineer reviews the issue to determine whether it is a customization error or a product error and makes the necessary changes, usually to a test system. After making the changes, the engineer tests the solution and provides a test plan to the project manager before assigning the task back to the project manager. The project manager verifies that the solution does work, and usually copies the fix to another test system designated for customer testing, then assigns the original task back to the customer for testing. After the customer verifies that the fix will meet their needs, the fix is installed into the production database according to the change management procedures agreed upon by the customer and Raintree. Once the change has been installed into production, the customer closes the task to indicate acceptance of the fix.

All tasks are reviewed by their assigned staff every day. All outstanding tasks are reviewed every week by the division director. Tasks which are taking too long to resolve (over 2 weeks) are automatically escalated to Raintree's management team to expedite the resolution.

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RR-J-02 What is the typical implementation timeframe for your solution? Express your answer as a range (6 to 12 months, 1 to 2 years, etc.) qualified by a size-of-project; factor such as number of users, total project cost, etc. An example would "6 to 12 months for a total project cost not exceeding \$500,000" etc. Please feel free to share any metrics that you typically use to estimate the timeframe for the implementation for your solution.

With public agency customers such as county and state agencies, Raintree typically completed implementations within a 6 to 18 month timeframe depending on the scope of programs included and the specifications required by the customer. Below we have provided a breakdown of Raintree's projected implementation process timeframe:

One County Departments Implemented	Number of Programs Implemented	Number of Concurrent Users Implemented	Total Estimated Implementation Timeline
1 County	1 Programs	15 Concurrent	3 Months

Department	Implemented	Users Implemented	
1 County Department	2 Programs Implemented	30 Concurrent Users Implemented	5 Months
1 County Department	3 Programs Implemented	45 Concurrent Users Implemented	7 Months
2 County Departments	4 Programs Implemented	100 Concurrent Users Implemented	9 Months
2 County Departments	6 Programs Implemented	150 Concurrent Users Implemented	11 Months
2 County Departments	8 Programs Implemented	200 Concurrent Users Implemented	13 Months
3 County Departments	6 Programs Implemented	250 Concurrent Users Implemented	15 Months
3 County Departments	8 Programs Implemented	400 Concurrent Users Implemented	16 Months
3 County Departments	10 Programs Implemented	600 Concurrent Users Implemented	17 Months
3 County Departments	10 Programs Implemented	800 Concurrent Users Implemented	18 Months
3 County Departments	10 Programs Implemented	1,000 Concurrent Users Implemented	19 Months
3 County Departments	10 Programs Implemented	1,200 Concurrent Users Implemented	20 Months
3 County Departments	10 Programs Implemented	1,400 Concurrent Users Implemented	21 Months
3 County Departments	10 Programs Implemented	1,600 Concurrent Users Implemented	22 Months
3 County Departments	10 Programs Implemented	1,800 Concurrent Users Implemented	23 Months
3 County Departments	10 Programs Implemented	2,000 Concurrent Users Implemented	24 Months

## Training

**RR-K-01** Describe the types of training offered, i.e., end-user, systems administrator, installer, etc.

Raintree recommends that county customers employ the Train the Trainer or “Super User” training program. Based on the size of your organization, we would recommend that each department program designate at least 3 Super Users as training leads. Raintree provides Custom Documentation Services, Technical Training Seminars and Database Administrator Training.

Software Training is provided via the following models:

- Online Phone/Internet Training can be provided using the Raintree End-User Shadowing Feature.

- Training can be provided to “Super Users” who then provide end-user training internally. Raintree suggests that Super User Training be completed via a combination of phone/Internet and on-site sessions.
- Training can be provided directly to end-users by the Raintree Software Trainers either over the Internet or on-site.

Raintree also provides Technical Training Seminars that provide customers with the training needed to configure their own screens, system rules, reports and forms.

The TTS is usually scheduled for 2 consecutive days at Raintree Corporate in Temecula, California.

**RR-K-02** How often is training offered (as needed, or on a set calendar schedule)?

Training is complete as needed with at least 2 weeks advance notice of the training request.

**RR-K-03** Please give the duration of each class, the location of training and the recommended number of people that should attend training.

Technical Training for System Administrators is completed during two consecutive days. The individuals who should attend include designated program managers, Information Technology professionals and/or any designated project lead as determined by the county.

**RR-K-04** Please describe if training is classroom style with an instructor, one-on-one, computer-based training, self-study, etc.

Raintree offers the following onsite training options:

- Classroom training with one or more instructors
- Group Super User Training
- One-on-One Training

Raintree offers the following phone/Internet online training options:

- Group Super User Training
- One-on-One Training

Raintree also provides online Helps and Tutorial Training menus throughout the application.

**RR-K-05** Who provides the training: employees of your company or sub-contractors?

Unless if otherwise requested by customers, Raintree employees provide the training direct to our customers' Super Users and/or End Users.

**RR-K-06** Do you provide clinician-specific training?

Yes

**RR-K-07** Do you provide fiscal-specific training related to billing Short-Doyle Medi-Cal in California?

Yes

## Documentation

**RR-K-07** Describe the documentation (both system and training) provided as part of standard installation approach including:

1. Manager and user reference manuals (applications).
2. User operator/system administrator manuals.
3. Hardware/OS manuals.
4. Network and Security.
5. Training manuals (initial and ongoing user self-training).

Raintree provides manuals both in MS Word format and within the online Helps and Tutorials within the Raintree Application. These manuals cover end user functions and reports generation methods as well as application security configuration settings. Raintree also provides Technical Manuals that include application configuration training in building custom fields, screens, forms, reports and rules.

**RR-K-08** Is the documentation available:

1. In hardcopy?
2. On CD-ROM?
3. On the Local Area Network?
4. On the Internet?

Training documentation can be made available in hard copy, CD-ROM, installed on a Local Area Network or over the Internet via the Raintree Systems, Inc. website.

**RR-K-09** How often is your documentation updated? How often are updates made available to the user? How is documentation updated (memo, revised manuals, on-line, CD, etc.)? Global documentation updates at the release of new versions as they are released. Custom documentation for customers is provided as custom screens, forms or reports are released to customers.

**RR-L-01** Do proposed acquisition and/or ongoing maintenance/support costs include:

1.  
Future enhancements to acquired/licensed application modules?

YES

2.  
Operating system and related environmental software?

YES - Raintree does not re-sell operating system software, but provides enhancement patched to comply with new versions of operating systems supported by Raintree such as Microsoft XP, 2003 and VISTA.

3.  
Interface maintenance?

YES

4.  
Architectural changes such as migration to emerging technologies and new methods of systems deployment?

YES

If not, describe the conditions and terms under which enhancements/new releases are made available to existing customers.

**RR-L-02** What are your normal support hours (specify time zone)? Where is support staff located?

Raintree's normal technical support hours are provided between 6 AM and 5 PM Pacific Standard Time. Raintree's technical support team is based in Temecula, California.

**RR-L-03** Which of the following support features are available? Check all that apply:

1.  
Toll-free hotline

YES

2.  
Remote monitoring

YES

3.  
Remote diagnostics

YES

4.  
Training tutorials

YES

5.  
Web-based support tracking

YES

6.  
24x7 software support

YES

7.  
24x7 hardware support

YES – Raintree partners with Harland Technology Services for hardware or hardware support. Raintree and Harland Technologies are available troubleshoot hardware and networking issues that involve the Raintree Application with the customers' hardware vendor on a 24 hour, 7 days per week basis.

**RR-L-04** Provide the response time for problems reported during:

1.

Regular business hours.

2 Hours

2.

Off-hours.

2 Hours

**RR-L-05** Describe your problem reporting software and tools. Are they available via the Internet? Can a list of outstanding problems and enhancements by client be viewed on-line and downloaded?

Raintree utilizes a combination of two products for customer related problem resolution purposes. Raintree's Client Relationship Management application is NetSuite. This tool handles support ticket logging and training within Level I and Level II support issues. Raintree also utilizes the Raintree Task List for Level III support issues that involve long term projects and enhancements. Both applications are available over the Internet.

**RR-L-06** Describe your firm's approach to software maintenance agreements. Include how, and at what frequency, your firm provides maintenance and upgrade services in support of your system products.

Raintree provides software support and maintenance services during the normal business hours of 6:00 am thru 5:00pm PST. After hours emergency support is provided 24 hours a day 7 days a week. Raintree typically communicates via a combination of phone calls, emails and the Raintree Task Manager and via its customer relationship management application (NetSuite) which tracks projects and product support tickets.

Raintree does not charge for software bugs or other system issues provided customers maintain Software Maintenance and Technical Support Agreements. Raintree can log directly into the customer's application without the need to utilize pcAnywhere or a VPN. Raintree has a built-in application shadowing toolset that is HIPAA compliant.

Raintree's Support Agreement includes the following labor services:

- I. The diagnosis and resolution of application screens, tables, and files irregularities or system "bugs"
- II. The diagnosis and resolution of irregularities in existing system reports
- III. The diagnosis and resolution of printing problems that are directly related to Raintree Professional operations
- IV. The diagnosis and resolution of operational conflicts or "bugs" that involve existing Raintree Professional Rules Based Client Management scripts.
- V. The diagnosis and resolution of corruption that occurs in the Raintree Professional database
- VI. The diagnosis and resolution of problems that result from the electronic billing, remittance posting, eligibility checking, and other ANSI X12 submissions to third-party payors

VII. The diagnosis and resolution of problems that result from the electronic interfaces with external applications

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Hosted Application Availability/Up Time

Raintree's objective is to ensure that our customer's application are available on a 24 hour, 7 day per week basis. Scheduled down times for server maintenance occur approximately 4 times per year, but are scheduled during off work hours. Raintree always schedules maintenance outside core hours of operation. Existing hosted systems operating 24 hour Crisis Lines already drive this process. The Raintree IT staff interviewed states two instances in the last year where the end users were impacted for a short period of time. Average time for scheduled shut down is 15 minutes to an hour depending on the nature of the maintenance.

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Service Level Agreement Severity Scale. The severity of a problem will be determined by reference to one of the following four categories:

- (a) "Critical" means an entire system or Application is down or severely affected, and LICENSEE cannot conduct business as a result of the loss of operations or continual failures.
  - (b) "Major" means the system or Application is interrupted and there is a risk of recurrence. In addition, there is significant impact upon the ability to do business caused by performance degradation or intermittent Failures.
  - (c) "Minor" means a problem, which has minimal impact upon business operations. It is a localized or isolated operational nuisance that may include Documentation errors.
  - (d) "No Impact" means general usage or configuration questions that require specific information.
3. To receive modem or online Internet support from Vendor, Licensee is required to provide Vendor with access to Licensee's Raintree Application via the Internet.

Emergency Shut Down Notification:

If the system required emergency maintenance the Customer's Project Manager would be notified and could use the built in Broadcast message feature to alert the users. A sample of the message entry screen and notification are listed here below. System stability rates are well above industry standards. The Raintree IT staff interviewed states two instances in the last year where the end users were impacted for a short period of time.

## Broadcast Message



From:

CA

Christine

To: (Leave empty to send the message to all users)

Filter:

c:\office\RAINTREE\

Press ENTER to edit the message text

### System Message

Tue

From: Christine  
Station 90

This is an urgent message from the OFR database administrator. Please log off the system for 15 minutes while we perform urgent unscheduled maintenance.

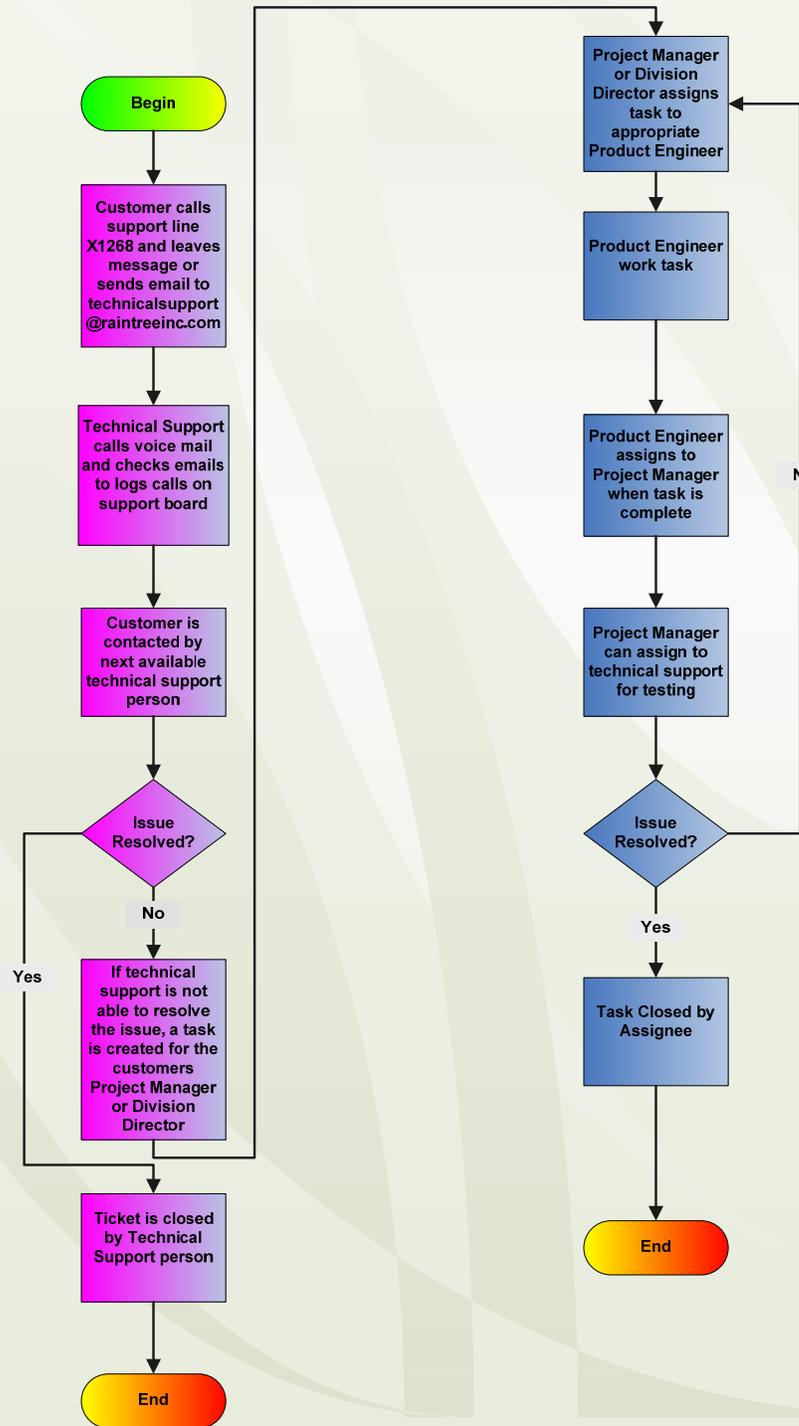
\*\*\* Message sent to 0 users \*\*\*

**Press CTRL+G to close this message...**

# Support Call Work Flow

## Technical Support

## Task List



Raintree Software Products are updated on a quarterly basis. Updates are made to the core executable and will not affect customization done by Raintree, or the end users. Updates are not executed until they have passed a rigorous QA process, and have received approval from a designated client representative. The client component is a single compact executable that is designed for zero administration, including automatic client exe updates.

**RR-M-01** Describe your pricing and/or licensing models based on the various product functionalities listed above. Do not provide specific pricing in your response, but information on how pricing is derived is pertinent. Examples of pricing models may be: module-based pricing, package or suite pricing, single price package, subscription based, package plus maintenance, etc.

Raintree provides numerous licensing models and allows its customers to select the optimal licensing and hosting solution for their organization. Raintree does not typically charge for separate modules. The following table provides an overview of each licensing model option.

Licensing Model Options	Licensing Model Description
<b>Purchase Model Concurrent User Licensing</b>	This licensing model is based on the number of users that are concurrently logged into the application. Customers pay a one time licensing fee for the use of the application based on the number of current licenses purchased. Maintenance and technical support is paid annually and includes product updates. Software Application Service Provider Server Hosting is provided at the option of the customer based on the number of concurrent users licensed.
<b>Software Subscription Model Concurrent User Licensing</b>	This licensing model is based on the number of users that are concurrently logged into the application. Customers pay an all inclusive monthly fee for the software licensing, maintenance and technical Support, product updates and Application Service Provider Server Hosting based on the total number of concurrent user licenses purchased by the customer.
<b>Purchase Model Per Provider Licensing</b>	This licensing model is based on the number of rendering providers managed within the Raintree Application. Customers pay a one time licensing fee for the use of the application based on the number of rendering providers managed within the application. Maintenance and technical support is paid annually and includes product updates. Software Application Service Provider Server Hosting is provided at the option of the customer based on the number of rendering providers managed within the application.
<b>Software Subscription Per Provider Licensing</b>	This licensing model is based on the number of rendering providers managed within the Raintree

	Application. Customers pay an all inclusive monthly fee for the software licensing, maintenance and technical Support, product updates and Application Service Provider Server Hosting based on the total number of concurrent user licenses purchased by the customer. .
<b>Enterprise-Wide Purchase Model Licensing</b>	Customers pay a one time licensing fee for the use of the application based on a licensing rate as mutually agreed to by the customer and Raintree. Maintenance and technical support is paid annually and includes product updates. Software Application Service Provider Server Hosting is provided at the option of the customer, with the fee set as mutually agreed to by both the customer and Raintree.
<b>Enterprise-Wide Software Subscription Model Licensing</b>	Customers pay a monthly fee to subscribe to the Raintree Application based on a rate as mutually agreed to by the customer and Raintree. Customers pay an all inclusive monthly fee for the software licensing, maintenance and technical Support, product updates and Application Service Provider Server Hosting based on the total number of concurrent user licenses purchased by the customer.

**RR-M-02** List any programs your corporation currently participates in, in which you provide a single pricing and licensing model for a large customer with decentralized purchasing (public or private sector), and functional descriptions of that model. Examples of this type of licensing/procurement program may be the State of California Software License Program (SLP), or the California Strategic Sourcing Initiative.

Raintree provides practice management and electronic health records to human services agencies which provide services to children and adults with developmental disabilities. One of the largest providers of service in this industry is Easter Seals, Inc. Raintree provides all Easter Seals Affiliate partners with a 25% discount on software licensing fees.

Although Raintree is currently does not currently participate in the SLP or California Strategic Sourcing Initiative, our company is willing to participate in one or more of these programs in providing pricing value to California Counties.

**RR-N-01** It is fully expected that Counties will encounter risks/issues that they must manage and mitigate. Please identify the risks/issues that a County is most likely to encounter when implementing your solution. Please include examples from prior implementations of your solution.

When implementing new software solutions, organizations often encounter challenges in managing the support of current solutions with the need to dedicate the proper amount of resources required to successfully implement the new software solutions. It is important to

allocate sufficient personnel resources to a new software implementation, while ensuring that existing applications are utilized and maintained to ensure operations are not negatively impacted by the implementation project.

It is also critical that the department leadership has achieved consensus in terms of the critical success factors, configuration standards and implementation goals and objectives. Failure to complete adequate internal audits of application requirements, transactions, process workflows and reports can lead to implementation delays and budget overages. In an ideal software implementation, the county department leadership agrees to and documents all application requirements, goals and objectives as a first step in the implementation process.

**RR-O-01** Provide a minimum of three (3) previous implementations of your solution that most closely approximate a CA County Behavioral Health setting. Include a California reference if available. Provide names and contact information of individuals who have sufficient experience to speak knowledgeably concerning:

1.  
The implementation process.
2.  
System functionality.
3.  
Vendor support.
4.  
Documentation.
5.  
Training.
6.  
Overall customer satisfaction.

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