Proposer's Name:

RFP No: G099-0922-10

#### **ADDENDUM VI-B**

#### **TECHNICAL REQUIREMENTS**



Mental Health
Electronic Health Record System

# **Technical Requirements TOC**



Solano County
Health & Social Service
Mental Health Electronic Healthcare Record (EHR) System

#### **Table of Contents**

Instructions
Section 2.1 - Application
Section 2.2 - Data
Section 2.3 - Platform
Section 2.4 - Network
Section 2.5 - Security
Section 2.6 - Interfaces

### **Technical Requirements Instructions**



Solano County Health & Social Services Mental Health Electronic Health Record (EHR) System

#### TECHNICAL REQUIREMENTS RESPONSE INSTRUCTIONS

The Technical requirements set forth in this Addendum VI B -Technical Requirements Response, for the Solano County Mental Health EHR RFP are contained in a Microsoft Excel workbook and is designed to be a self-scoring matrix. The matrix has been designed to require a single response in the appropriate Response Column How Met or Avail. for every numbered requirement within each respective section. Only one entry per numbered requirement is permitted. Proposer shall not place responses in columns that are shaded or unnumbered, alter, insert rows or add data to the matrix.

Complete and submit information as requested for each and every required Section [i.e., Section I (Application), Section II (Data), Section III (Platform), Section IV (Network), Section V (Security), Section VI (Interfaces)].

IMPORTANT: Proposer must not leave any numbered requirement response column blank within each respective section. Failure to provide a response to any numbered requirement will be deemed "Non-Responsive." Multiple responses to any numbered requirement will also be deemed "Non-Responsive." Responses that are deemed "Non-Responsive" will result in a zero (0) point score or may, in County's sole discretion, result in disqualification or elimination of the proposal.

For each numbered requirement, select one of the following for Response Column "How Met". The definitions for this column are as follows:

#### \* Standard (Std.)

Requirement can be met...

- with a feature that exists as part of the system's existing feature set
- through the use of configuration or customization tools that already exist within the system, but without any programming or changes to program code base (e.g. using a built-in tool to build custom local forms, reports or workflows would be acceptable)
- through the use of 3rd party products bundled as part of a typical or standard installation (e.g. a 3rd party report writer) Note: For all requirements marked as "Standard feature," fill out "Avail." column.

#### \* Minor Modification (Min.)

### **Technical Requirements Instructions**



Solano County
Health & Social Services
Mental Health Electronic Health Record (EHR) System

#### TECHNICAL REQUIREMENTS RESPONSE INSTRUCTIONS

Require LESS THAN 80 hrs of work: Requirement can be met...

- by spending up to 80 hours modifying or extending the proposed solution
- by making changes to the baseline product code, including the use of custom programming
- by incorporating 3rd party products that are not included as part of a standard installation

Note: All costs associated with system modifications, both one-time and on-going maintenance, must be provided as separate line items in the cost proposal. All modifications must be fully supported by the vendor and supported in the system upgrade process.

#### \* Major Modification (Mjr.)

Require MORE THAN 80 hrs of work: Requirement can be met...

- by spending over 80 hours modifying or extending the proposed solution
- by making changes to the baseline product code, including the use of custom programming
- by incorporating 3rd party products that are not included as part of a standard installation

Note: All costs associated with system modifications, both one-time and on-going maintenance, must be provided as separate line items in the cost proposal. All modifications must be fully supported by the vendor and supported in the system upgrade process.

#### \* Not Available (N/A)

Requirement is not and will not be met by proposed solution

For each numbered requirement to which "How Met" is Std., select one of the following for Response Column "Avail". The definitions for this column are

#### \* Production (Prod.)

Feature is installed and currently being used at similar client sites as part of the standard production product.

#### \* Beta (Beta)

Feature is installed and being used in at least one client environment (may be running in client test environment) and is scheduled to be incorporated into standard production product by 5/31/11

## **Technical Requirements Instructions**



Solano County Health & Social Services Mental Health Electronic Health Record (EHR) System

#### TECHNICAL REQUIREMENTS RESPONSE INSTRUCTIONS

#### \* <u>In Development (Devl.)</u>

In development: feature is being designed or built and is scheduled for general release into standard baseline production product by 5/31/11. Design documents may be requested.

In addition, please provide comments that may better allow the County to evaluate your response:

#### \* Comments

Provide any comments or concerns on the requirements in the section. These comments will not be used for evaluation but may be referred to for clarification by the County evaluation team.

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Requireme	nt	Prior.	How Met	Avail.	Comments
Req#	Description				
2.1.1	Performance				
2.1.1	The system shall support 200 concurrent users without degradation of overall system	HD			
	performance.				
	The system performance should not degrade during backups.	HD			
	Usability/User Interface				
R2899	The system shall allow the use of County-defined hot keys for system navigation and	HD			
	data entry.	TID			
R2900	The system shall support the ability for a user to navigate with keyboard commands				
	within a screen (e.g., tab between fields, select from pick list) as well as use the	HD			
	keyboard for data entry.				
R2906	The system shall allow a user to establish links to outside information sources from				
	within the application (e.g., performing research on best practices, access to on-line	D			
	County policies), access the link, and return to the point from where the link was				
2.2.1	The system shall have a consistent and standard user interface throughout the system.	HD			
R2972	The system shall support the technical standards and performance requirements that				
	ensure compliance with American Disability Act (i.e., Section 508 compliant) for	HD			
	standard workstation and Web-based user interfaces.				
R2973	The system shall allow a user to personalize their workspace for color, font size, and	HD			
	arrangement of system functions.	Ш			
R2974	The system shall ensure that a user can navigate from one part of the system to another				
	using a maximum of three user actions (e.g., 3 keystrokes, 3 mouse clicks, 3 touch	D			
	screens) from any given starting point.				
R2976	The system shall present the user with a navigation structure that allows the user to	HD			
	know where they are in the application at all times.				
	The system shall provide a home link on every screen.	HD			
	The system shall provide a logout link on every screen.	HD			
R2980	The system shall provide methods to prevent a user from entering invalid information.				
	(Note: Mechanisms can include pick list, field formatting, and rules on field entry that	HD			
	are triggered by field entry/exit.)				

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Avail: For Std. ONLY select one of the following -- Prod. For In Production, Beta for In Beta, Dev. For In Development, N/A for not available or applicable

Requireme	nt	Prior.	How Met	Avail.	Comments
	The system shall have user friendly data entry features, including but not limited to highlighted data fields and warning messages that appear to remind the user to provide missing data.	HD			
R2982	The system shall provide a support guide which documents all the known possible errors that can be displayed or logged by the system to include error number, error message, and a detailed description of the meaning of the error.	HD			
R2984	The system shall trap and display an error number and message to the user when an error occurs during a user interactive session.	HD			
R2986	The system shall allow an authorized user to create, customize, and update context- sensitive help.	HD			
R2987	The system shall provide a comprehensive on-line help that is integrated within the application and is user searchable for any topic.	HD			
R2988	The system shall provide context-sensitive help that is specific to the screen (e.g., form) the user is currently using.	HD			
R2989	The system shall provide context-sensitive help that is specific to the field (e.g., data field on a form) where the cursor is currently positioned.	D			
R2990	The system shall permit the user to access more than one application at a time (i.e., minimize application to do other work)	HD			
R2991	The system shall allow a user to use multiple system screens during a single user	HD			
R2992	The system shall allow a user to review, update, or enter consumer demographic	HD			
R2993	The system shall support the integration of continuous voice recognition tools to permit dictation and/or transcription directly into the electronic record.	HD			
	The system shall support spell check on all data fields, including medical terms.	HD			
R2995	The system shall provide the capability for a user to perform basic formatting on free text fields. (Note: An example of basic formatting would be the formatting controls provided for free text fields in Microsoft SharePoint.)	HD			
	The system shall provide access to the system via mobile devices with small form factors, such as PDAs and smart phones.	D			
	The system shall support a thin client user interface (e.g., Web browser, Citrix).	D			
R4357	The user interface should follow the normal Microsoft Windows conventions.	HD			

2.1.3 Workflow Development and Management

Requireme	nt	Prior.	How Met	Avail.	Comments
	The system shall provide the capability for a user to design, document, update, maintain, and reuse workflow templates based on County-designated rules.	D			
	The system shall support the automation of business procedures or workflows so tasks are performed and information is passed from one participant to another as governed by pre-defined business rules or procedures.	D			
	The system shall provide guidance as to the various screens required to perform standard procedures. [For example, an admission may require several steps including	HD			
	The system shall provide the capability for a user to create and save a workflow instance from a workflow template by filling in and saving the template with required parameter values and constraints.	D			
	The system shall validate a workflow instance prior to its execution, (i.e., verify whether the user supplied values are of the correct type and within a valid range as defined in the template.)	D			
	The system shall provide the capability for a user to reuse utilizing existing workflow templates and/or workflow instances to create a new workflow template.	D			
	The system shall provide the capability to interface a workflow instance with a user-defined action that requires the use of external applications.	D			
	The system shall provide the capability to interface a workflow instance with an automated system service or process, such as automated outbound faxing of lab orders.	D			
	The system shall provide the capability for a user to initiate a workflow instance on a periodic basis (i.e., scheduled).	D			
	The system shall provide the capability for a user to reassign a work item to another authorized user or role.	HD			
	The system shall permit a user to delegate their approval authority to another authorized user (or multiple users) for a specified period of time (i.e., date range).	HD			
	The system shall provide for electronic signature to indicate authorization or approval in accordance with the needs of a given business process/workflow.	HD			
	The system shall allow an electronic checklist to be associated with a workflow activity as a means for a user to track their completion of workflow activity tasks.	D			

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Requireme	nt	Prior.	How Met	Avail.	Comments
R3023	The system shall capture and report on workflow execution metrics that include workflow start time, workflow end time, and the user(s) that completed the workflow	D			
R3025	The system shall support the ability to escalate a task when the task is overdue.	HD			
2.1.4	Alerts, Notifications, and Reminders				
	The system shall support the automation of alerts, reminders, and notifications that can be associated with any and all activities supported by the system.	HD			
R3000	The system shall allow a user to define (configure) business rules regarding reminders, alerts and notifications.	HD			
R3002	The system shall allow the association of an alert, reminder, or notification with a form, both at the overall form level and the specific field level within a form.	HD			
R3003	The system shall provide the ability to notify all participants in the workflow when a request has been cancelled or withdrawn.	D			
R3004	The system shall send alerts, notifications, and/or reminders to a designated recipient through internal system routing, secure messaging, or e-mail (Exchange).	D			
R3005	The system shall send alerts, notifications, and/or reminders containing only non-confidential data to a designated recipient through Short Message Service (SMS).	D			
R3006	The system shall provide the capability for a user to establish and maintain a group of designated recipients for the receipt of a specific alert, notification, and/or reminder.	HD			
R3007	The system shall allow a user to set personal parameters for reminders, notifications, and/or alerts, but not override those required by policy or practice	D			
R3008	The system shall provide a user interface that allows a user to drill down to the underlying detail for events that generate reminders, alerts and/or notifications.	HD			
R3001	The system shall provide a reminder to a designated user as to action(s) on their part for completion of a system item (e.g., documents or forms requiring user approval and signature, billed item that has had no payment action in 45 days, completion of assessments within a timeframe specified by regulation).	HD			

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Require	ement	Prior.	How Met	Avail.	Comments
Req#	Description				
2.2.1	Database Access				
R2889	The system shall allow authorized users read-only access to the backend database (i.e.,				
	production database) outside of the application for data extraction and reporting in standard formats (CSV, Excel, text, Word, PDF) and XML.	HD			
R2890	The system shall provide for an authorized user to access backend data outside of the				
	application to allow operations that require bulk updates to and inserts of new, information.	HD			
2.2.2	Data Governance				
R3037	The system shall provide tools to govern all data contained in the system, including:  - Quality controls for data being imported into the system  - Audit trails for data either imported/exported from the system (including disposition if known)  - Access control over information down to the data element level, if needed  - Auditing of all changes to information down the data element, if needed	HD			
	The system shall maintain a history of all reference data, fee schedules, and codes, the date range in which the data was valid, and apply these values according to those date ranges (e.g., date of a transaction, date of service) to calculations, edits, or business rules (i.e., clinical, administrative, or financial) in effect for the time period(s) being evaluated in order to ensure the context in which the original information was obtained.	HD			
	Data Management				
	The system shall lock specific parts of a consumer record when being edited by one user against inadvertent changes by other users, but will continue to allow concurrent viewing of the record by users.	HD			
	The system shall support the use of views, either system-defined or user-configured, to merge data from multiple tables into logical groupings for standard queries or reports.	HD			
R3027	The system shall ensure that data entered into the system at any point (i.e., registration) should automatically populate appropriate fields in all other relevant areas to avoid redundant data entry.	HD			

Require	ement	Prior.	How Met	Avail.	Comments
	The system shall allow a user to define the rules for determining consumer status (i.e., what constitutes an inactive consumer) and be able to report on that consumer according to this status.	HD			
R3029	The system shall support all actions related to the archiving of data that is no longer needed on a real-time basis by County staff, to include:  - Archive data according to user-defined rules (e.g., based on service date, date of last activity, status of consumer outstanding balance, or other user-defined characteristics);  - Provide reports identifying data that has been archived;  - Restore archived data.	HD			
R3030	The system shall utilize an industry-standard database that has the scalability and flexibility to meet the current and future needs of the County.	HD			
R3031	The system shall use Microsoft SQL Server for its database functionality.	D			
	The system shall permit the creation of user-defined fields and data elements in the database for use by application and reporting tools.	HD			
	The system shall provide tools for a user to establish, maintain, and update reference tables in the system (including terminology and dictionaries).	HD			
	The system shall support the ability to mirror data across system environments/database (i.e., the production database is mirrored to the reporting database so the mirrored database should be available to all report writers to produce standard and user-developed reports.)	HD			
	The system shall retain historical information for key data items in order to review and/or report on historical data. (For example, the system will track a history of alias names, past consumer addresses, past residential status, employment status, referrals and other key items.)	HD			
	The system documentation shall include a complete data dictionary and entity- relationship diagram of all of system tables, table relationships, fields, and field attributes.	HD			
R3032	The system shall maintain separation in the database for sensitive cases so information can only be input, viewed, or extracted by authorized staff (i.e., cases have unique identifiers but contain all the same data elements as the regular database).	HD			

Require	ement	Prior.	How Met	Avail.	Comments
	The system shall maintain standard attributes (i.e., a list of valid values for a data value such as for medical diagnosis) that allow for standardization of user selection of items in a specified system field (e.g., selection from a drop-down list of values).	HD			
	The system shall validate all data imported into the system based on County-defined rules (e.g., batch loads are validated in the same method as being used for screen entry and exception reports need to be self-explanatory).	HD			
	The system shall provide an automated process to update fee schedules, code sets, and other reference data required by State and federal agencies.	HD			
	The system shall have the capability to export user-defined content/data from the system into standard file formats in the following formats (e.g., MS Office (Word, Excel), ASCII (plain text, CSV).	HD			
	The system shall support administrative tools to check for, identify, and resolve duplicate consumer records.	HD			
	The system shall allow authorized users to merge consumer records in the case of duplicate entries.	HD			
	The system shall include administrative tools for establishing, managing, and maintaining data quality, addressing the following: Completeness (what data is missing?), Consistency (what data gives conflicting information?), Conformity (what data is stored in a non-standard format?), Accuracy (what data is incorrect or out of date?), Duplicates (what data is repeated or duplicated?), Integrity (what data is missing or not supported?).	HD			
	The system shall provide the capability for a user to view the system data dictionary on- line, including entity and field level descriptions for all user-accessible data.	D			
	The system shall ensure that a consumer record cannot be deleted.	HD			
	The system shall ensure that a consumer record unique identifier cannot be changed or reused.	HD			
	The system shall provide tools that allow the analysis of the data by an authorized user for consistency, quality, and accuracy such as missing elements, mal-formed data, and/or incomplete records. (Note: This should include the identification of duplicate information.)	D			

Require	ement	Prior.	How Met	Avail.	Comments
	The system shall provide tools to de-identify or redact personally identifiable or health information as required by privacy and confidentiality business rules when data is being requested from the production and/or reporting environments.	HD			
R3165	The system shall provide ETL (extract, load, transform) capabilities (e.g., tools) to load data from external sources into the system according to County-defined rules for validation.	D			
R3168	The system shall manage both structured and unstructured information as part of the consumer record, including creation, retrieval, update, reporting, and tracking functions on such data.	D			
	The system shall be able to create separate records from consumer records erroneously merged.	HD			
	The system shall provide the ability to copy portions of the production and/or reporting environment database(s) to other environments based on parameters specified by County.	HD			
	Forms Management				
R3058	The system shall allow the creation, documentation, and management of electronic forms.	HD			
	The system shall support templates for all existing County forms to be available for electronic entry.	D			
R3060	The system shall support the modification of existing screens including adding new fields, removing non-core fields, changing the location of fields, control over data entry rules, changes to validation checks, etc.	HD			
R3061	The system shall have the ability to develop custom forms, allowing for creation of user-defined fields, display of data items from existing fields, validation checks on all new and existing fields, and user-defined entry rules (e.g., entry required, warning if no entry, entry not required) on all new and existing fields.	HD			
	The system shall provide the capability for a user to define a list of valid values for a field on an electronic form.	HD			
R3063	The system shall provide the capability for a user to define default values for electronic forms.	HD			
R3064	The system shall provide the capability for an authorized user to define which fields of an electronic form are mandatory and which are optional for a user to complete.	HD			

Require	ment	Prior.	How Met	Avail.	Comments
	The system shall provide the ability to initiate a workflow process (i.e., create process instance) based on the completion of an electronic form (e.g., provisioning request).	D			
2.2.5	Reports Management				
	The system shall allow a user to save an ad hoc report as a standard report template.	HD			
	The system shall include an integrated report writer that has the capability of reporting on any group of data fields in the entire system; can perform multi-layered sorts and selects; has the ability to utilize wild cards in any data position of a field to select items; has the ability to compute on any field or group of fields.	HD			
	The system shall include an integrated report writer that generates both ad hoc query-type results and formatted reports that can be produced and distributed on an ongoing basis.	HD			
	The system shall support the use of other SQL-compliant third-party report writers, especially Crystal Reports and SQL Reporting Services.	HD			
	The system shall allow a user to schedule the production of a specific report to run on a routine basis at a specified time and frequency.	HD			
	The system shall permit authorized staff to download aggregate data into spreadsheet, database applications, and other business intelligence tools (e.g. Microsoft Excel and Access, etc.).	HD			
	The system shall support a report generation process, tested in the County environment, that ensures default or user-defined parameters can be limited to ensure that reports can be created in a timely manner and that the report processing will not adversely affect system resources.	HD			
R3072	The system shall allow a user to direct a report to a specific location for printing.	HD			
	The system shall provide standard reports as specified by the County, allowing a user to generate a standard report based on default or user-defined parameters.	HD			
R3075	The system shall provide the capability for a user to develop, update, save, and reuse adhoc reports.	HD			
	The system shall provide the capability for an authorized user to save a template used to generate ad-hoc reports as a standard report template.	HD			
	The system shall control access to the data used to create a standard or ad-hoc report consistent with user role-based authorization (i.e., whether the user has access to the information based on their role).	HD			

Require	ment	Prior.	How Met	Avail.	Comments
R3078	The system shall control access to any saved reports based on the user role.	HD			
R3079	The system shall maintain an audit trail of when reports were run, where printed, and by whom.	HD			
	The system shall provide the capability for an authorized user to specify the period (i.e. retention period) that output from a completed report can be saved on-line before the report output is moved to archive and/or deleted.	D			
R3081	The system shall automatically delete a saved report if the saved report is older than the user-defined retention period.	D			
R3082	The system shall provide the capability for an authorized user to export saved reports in MS Office (e.g., Word, Excel) or PDF file formats.	D			
R3083	The system shall automatically provide notification of errors in printing jobs.	D			
R3084	The system shall retain a final, unalterable copy of a report or document, including its source data, when electronically signed.	HD			
R3085	The system shall provide the option of outputting reports to the screen, printer, and files in ASCII files and standard application formats such as XLS, CSV, MDB, TXT, DIF, DOC, DOCX.	HD			
R3086	The system shall provide the capability for an authorized user to specify specific standard criteria clauses for compliance, disclosure, legal or financial concerns, or data classification to be included on a report.	HD			
	The system shall provide the capability for an authorized user to generate a standard report with either default or user-specific parameters and save the standard report as a template with these parameters.	HD			
	The system shall provide an estimate of time that it will take to run a report to completion.	D			
R4124	The system shall allow for the selection and filtering of report parameters by key variables such as date range, department, and clinician.	HD			
2.2.6	Decision Support				
	The system shall provide decision support functionality that allows a user to perform statistical analysis, financial analysis, data modeling and simulation, scenario generation, and graphical presentation of data analysis and results.	HD			
2.2.7	Querying				

Require	ement	Prior.	How Met	Avail.	Comments
	The system shall allow a user to query in real-time and in accordance with that user role (i.e., access any combination of user-defined data elements) all data captured by the system.	HD			
	The system shall allow a user to build, document, save, and execute queries on system data according to the user role(s).	HD			
	The system shall enable a user to search for specific words or phrases in either the free and/or structured text sections of a record.	HD			
	The system shall provide the ability to search on any data field, including any fields that are user-defined.	HD			
	The system shall provide methods to assist an unfamiliar user in querying the system, such as keywords, a natural language or graphical interface.	D			
	The system shall, for advanced user, allow the use of SQL (Structured Query Language) as a standard method for requesting information from the system.	HD			

### **Technical Requirements Section 2.3 - Platform**

Require	ement	Prior.	How Met	Avail.	Comment
Req#	Descripiotn				
2.3.1	Platform				
R2912	The system shall support a secure portal environment for both consumers and providers.	HD			
	The system shall integrate with County-specified backup software and still maintain high availability and performance	HD			
	The system database should have the ability to synchronize with another SQL Server / Cache database instance.	HD			
	The system shall support the County-designated standard configuration for end-user computing devices (i.e., workstations, laptops, smart phones) and peripherals (i.e., printers, scanner, multi-function devices).	HD			
	The system shall operate on a stable, widely accepted operating system (e.g., Microsoft Windows).	HD			
	Processing Environments				
	The system shall provide for complete isolation of each processing environment from all others.	HD			
	The system shall support the following environments: 1) Development, 2) Training environment used to train users, 3) Test environment to support prototyping and testing, including unit testing, system testing, integration testing, user acceptance testing, and regression testing, 4) Staging environment to support pre-migration activities prior to installation of software and/or data in the production environment, 5) Production environment and 6) Reporting environment for standard and ad-hoc reporting, synchronized with the production environment, used to maintain the performance of the production environment,	HD			
	The system shall enforce security controls that are unique to each processing environment.	HD			
	The system shall be configured such that any processing environment, when fully configured and operating, shall not negatively impact the performance of any other processing environment.	HD			
	The system shall keep the data in the reporting environment synchronized with data in the production environment.	HD			

### **Technical Requirements Section 2.3 - Platform**

Require	ement	Prior.	How Met	Avail.	Comment
	The system shall include tool as part of the test and staging environments for: Identification and confirmation of design deficiencies and performance issues; Validation of design modifications for updates and fixes; Confirmation of the contents of the release package; and Analysis and resolution of any performance issues.	HD			
	System Backup				
	The system shall integrate with system management and administration tools used by the County including:  1) Backup and recovery of any portion of the system (including copy of the application data, security credentials, and/or log/audit files) or the entire system  2) System monitoring  3) Providing reminders, alerts, and notifications for system maintenance related activities.	HD			
2.3.4	System Logs				
	The system shall log and maintain information sufficient to determine: 1) What activity was performed; 2) Who or what performed the activity, including from where or on what system the activity was performed (subject), 3) What the activity was performed on (object), 4) When the activity was performed (e.g., date/time), 5) What tool(s) the activity was performed with, 6) What the status (such as success vs. failure), outcome, or result of the activity was. 7) What information was requested (down to the individual data element if requested), 8) Purpose for which the information was access (i.e., view, print, update). 9) Whether the activity was allowed or denied by the access-control mechanisms. 10) Description and/or reason codes of why the action was denied by the access-control mechanisms, if applicable.	HD			
R3109	The system shall ensure that the time/date stamp generated by each log is synchronized with the County infrastructure (i.e., County network time keeping service).	HD			
R3110	The system shall be capable of auditing every data element in the database.	HD			
	The system shall provide the capability for a user to select the additional data elements to be audited and the detail of information returned by the audit	HD			
R3112	The system shall restrict access to system logging and auditing function to authorized users.	HD			
R3113	The system shall provide mechanisms to ensure the integrity of the log files (i.e., encrypt log files to prevent unauthorized access and/or tampering).	HD			

### **Technical Requirements Section 2.3 - Platform**

Require	ement	Prior.	How Met	Avail.	Comment
	The system shall trap, display, and log all errors from the application and supporting components (i.e., database, operating system) and clearly identify the source of the error.	D			
2.3.5	Data Archival/Retrieval				
R3088	The system shall archive and restore consumer records according to the County-defined data retention and archive parameters.	HD			
	The system shall archive consumer records in a format that is independent of the software version and can be restored independent of the software version.	HD			
	The system shall provide the capability for an individual user to restore archived data.	HD			
	The system shall retain a complete version of a consumer record for the length of the consumer treatment within the County system plus for a County-specified period after discharge or death of the consumer.	HD			

### **Technical Requirements Section 2.4 - Network**

Require	ement	Prior.	How Met	Avail.	Comments
Req#	Description				
R3115	The system shall be compatible with and support TCP/IP protocols including: Secure Sockets Layer (SSL), Secure File Transfer Protocol (SFTP), Secure Shell (SSH), Simple Mail Transfer Protocol (SMTP) and Simple Network Monitoring Protocol (SMNP).	HD			
	The system shall support secure, Web-enabled user sessions that originate outside of the State and County firewalls and that are compatible with the current version of the VPN client being used by County.	HD			
	The system shall securely synchronize the host system with mobile and remote system clients.	HD			
R3162	The system shall be compatible with County file and print services (i.e., Windows, Active Directory).	HD			
R2947	The system should support network-based FAX.	HD			

## **Technical Requirements Section 2.5 - Security**

Require	ement	Prior.	How Met	Avail.	Comments
Req. #	Decsription				
	Security Architecture				
	The system shall have a documented security architecture that shows how the system, as implemented for SCMH, confirms with federal, State of California. and County regulations, standards, and policies regarding privacy and security.	HD			
	Access Controls				
	The system shall allow the County the same level of access to the application and its supporting database whether the system is hosted internally or externally to the County.	HD			
R2958	The system shall require a user whose role and responsibilities normally precluded	HD			
	The system shall support role-based access control (RBAC) for the authorization and authentication of users.	HD			
R3119	The system shall provide tools for role-based administration and reporting to include: 1) Define and manage roles by user, by role type, and by function, 2) Specify the privileges for a role, 3) Add a user to a role, 4) Associate a user with more than one role.	HD			
R3120	The system shall authorize access to system functions based on the user's role(s).	HD			
	The system shall authorize user access to any and all parts of a consumer's record and the functions that can be performed (e.g., create, read, update, delete) on that record or portions thereof according to the user's role.	HD			
	The system shall provide the capability for a user to configure record access control based on the user's location.	HD			
R3175	The system shall authenticate a user to their role before allowing the user access to the consumer information.	HD			
	The system shall provide the ability for an authorized user (e.g., system administrator) to add/delete users and assign, modify, or delete related system access restrictions or privileges including roles.	HD			
	The system should be able to flag user accounts that have been inactive for a County-specified period (i.e., 90 days).	HD			
R2956	The system shall provide the ability to monitor logins to the system: Successful, Unsuccessful, Number of attempts and whether succeed or fail	HD			

## **Technical Requirements Section 2.5 - Security**

Require	ment	Prior.	How Met	Avail.	Comments
R2954	The system shall provide password management controls that allow password resets without a user needing administrative access to user accounts and/or database.	HD			
	The system shall enforce the use of strong passwords.	HD			
	The system shall support password aging and provide mechanisms to enforce password changes at County-defined intervals.	HD			
	The system shall require the user to change the password after their next successful login when their login account has been reset by support (e.g., system administrator, helpdesk).	HD			
	The system shall prevent the reuse of passwords previously used within a specific (configurable) timeframe (i.e., within the last X days, etc e.g. "last 180 days"), or shall prevent the reuse of a certain (configurable) number of the most recently used passwords (e.g. "last 5 passwords").	HD			
R3177	The system shall not display passwords while being entered.	HD			
R2951	The system shall support two factor authentication (e.g., UserID/passwords) as documented in MEDS SSA agreement and County policy.	HD			
	The system shall integrate with Microsoft Active Directory (AD) for County user access authentication and authorization.	HD			
	The system shall provide a single user sign-on to the system modules and systems to which the user has access.	HD			
	The system shall support the use of biometric identification (i.e., fingerprint, retinal scan) for user identification and access control.	HD			
	The system, prior to a user login, shall display a warning notice (e.g. "The system should only be accessed by authorized users").	HD			
2.5.3	Session Management				
	The system shall terminate a user session after the period of inactivity is greater than the configured user session time-out period without locking the consumer's record.	HD			
	The system shall gracefully terminate a session in the event of any system/network failure that makes the system unavailable to a user for longer than County-configured session time-out period.	HD			
	The system shall provide the capability for the County to configure length before a user session times out.	HD			

## **Technical Requirements Section 2.5 - Security**

Require	ement	Prior.	How Met	Avail.	Comments
	The system shall allow the user to resume an interrupted session upon restoration of system/network service and user re-authentication to the system.	HD			
2.5.4	Data Security				
R3135	The system shall provide security to the data field level.	HD			
	The system shall allow data (down to the field level) in a consumer record to be marked as restricted and only made accessible to a user according to their role(s).	HD			
	The system shall restrict user access to those sections of a consumer's record for which they are authorized in accordance with their system-defined role(s).	HD			
	The system shall allow read-only access to authorized users if records or documents are open or being used by others (and provide information as to who has the file open.)	HD			
R2957	The system shall notify a user if the record is in use and by whom.	HD			
	The system shall have electronic mechanisms to corroborate that electronic protected health information has not been altered or destroyed in an unauthorized manner.	HD			

## **Technical Requirements Section 2.6 - Interfaces**

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Require	ement	Prior.	How Met	Avail.	Comments
Req#	Decsription				
	The system shall support system-to-system interfaces, both real-time and batch.	HD			
R3153	The system shall have formal interface specification(s) that describes the exchange of				
	information (i.e., clinical, financial, administrative) between itself and external healthcare oriented system(s).	HD			
R2931	The system shall be able to incorporate information from other databases or EHR computer systems (internal or external) into the consumer record according to County-defined policies.	HD			
R2924	The system shall be capable of interfacing with an automated call director (ACD) system.	HD			
R4361	The system shall be capable of interfacing with an interactive voice response (IVR) system.	HD			
R2938	The system shall allow for the on-line submittal of data to the State DMH ITWS for various State reporting requirements, including CSI.	HD			
R4360	The system shall support electronic transfer of data to/from the State DMH ITWS for claiming purposes.	HD			
R2942	The system shall support an XML interface to DCR (Full Service Partnership).	HD			
R2946	The system shall support secure Web services (XML).	HD			
R3152	The system shall support the mapping of system data into the State of California required formats as well as code translation and conversion.	HD			
R3154	The system shall support HL-7 interfaces version 2.3.1 or later.	HD			
R3155	The system shall support the Logical Observation Identifiers Names and Codes (LOINC) vocabulary standard.	HD			
	The system shall support the foundation standards established by CMS for E-Prescribing. (http://www.cms.gov/EPrescribing/02_Adopted%20Standard%20and%20Transactions.as p#TopOfPage)	HD			
	The system shall provide the capability for a user to share schedules and calendars established in the system with the County MS Exchange/Outlook clients	D			
R3158	The system shall provide the capability to interface with the County-designated external databases using Open Database Connectivity (ODBC).	HD			

## **Technical Requirements Section 2.6 - Interfaces**

How Met: Select one of the following -- Std. for Standard, Mjr for Major, Min. for Minor, N/A for Not Available

Require	ement	Prior.	How Met	Avail.	Comments
R3160	The system shall provide the capability to develop interfaces with County external databases using eXtensible Markup Language (XML).	HD			
R3161	The system shall provide secure programmatic access to the system functions through Web services.	HD			
R3163	The system shall support a standard system interface with bar code scanning devices (mobile and fixed) for clinical and inventory functions.	HD			
	The system shall support ePrescribing.	HD			
R3309	The system shall have the ability to interface with a staff calendar maintained on Outlook/Exchange and its appointment calendar when scheduling an appointment for that a consumer with that staff member.	D			
R4307	The system shall interface to the County accounting system (IFAS) for accounts payable transactions (e.g., Network Provider, Managed Care).	D			
R4096	The system shall support electronic transfer of data to/from the Medicare intermediary.	HD			
R3203	The system shall support a real-time interface to the State MEDS database to allow a designated user to view the current status of a consumer's eligibility at any time during the consumer course of treatment (e.g., during the billing process).	HD			
R4359	The system shall support a real-time interface to the State MEDS database to allow a designated user to query a consumer's eligibility at any time during the consumer course of treatment and capture an appropriate set of eligibility information back into the system (e.g. Eligibility Verification Confirmation code, CIN, etc.)	HD			
R3205	The system shall support periodic (i.e., monthly MMEF) down-loading of the Medi-Cal Eligibility Determination System (MEDS) files from the State.	HD			
R4101	The system shall support electronic transfer of data to/from CalOMS.	HD			
R3204	The system shall support the periodic download of electronic eligibility data and transactions from payers and plans, including Partnership and private insurance.	HD			