

## RFI Response Overview

Prime Care Technologies, Inc.'s ("PCT") response to this California RFI 32236 may be unique to the described CMIPS EVV integration system Options 1 (one) through 6 (six) under consideration in that we propose and recommend a multi-vendor and open systems approach to meeting the requirements defined in this RFI. This solution, called the Vendor Neutral Electronic Visit Verification Repository ("VN EVVR") and also referred to as Option 7, allows the State of California to utilize more than one EVV vendor to provide personal care and home health services to California residents. Our proposed solution supports any existing 3<sup>rd</sup> party EVV systems and aggregates the data from all these systems into a single data warehouse for purposes of data mining, analytics, integrated billing, data feed and auditing. **Our analysis of several other states that have started down the single vendor path is that PCT's Option 7 VN EVVR solution's total cost of ownership, over a five year period, is estimated to be upwards of than less five times the single vendor solutions.** The benefits of this approach, when compared to purchasing and customizing a single vendor EVV solution, can be summarized in the following table:



	NCR	Vendor X
Any Missouri EVV vendor can send data to repository	Yes	No
Slice and dice data for benchmarks, audits, and exceptions	Yes, statewide in scope	Limited by vendor or agency
High speed open API and standards for data integration with any 3 <sup>rd</sup> party EVV or EMR	Yes	No
ETL data integration methods	Yes	No
Fixed Visit Verification Device pricing	By EVV Vendor	Perpetual monthly charge
Any EMR vendor can send data to repository	Yes	No
Integrated billing data feed	Yes	Yes
Provider choice	Any approved EVV system works	Only 1 EVV system works
Provider disruption	Low*	High
Inclusion of claims integration	Yes	No
Cost to State	Low	High

**Table 1 Multi versus Single EVV Vendor Approach**

Please reference our Glossary of Terms (below) for terms used throughout the RFI response. Prime Care Technologies, Inc.

### Glossary of Key Terms and Acronyms

ADA	Americans with Disabilities Act
ADFS	Active Directory Federated Services
API(s)	Application Programming Interface(s)
BI	Business Intelligence
CMIPS	Case Management, Information and Payrolling System
CSV	Comma Separated Values
EDI	Electronic Document Interchange

EMR	Electronic Medical Record(s)
ETL	Extract, Transfer, Load
ETS	Electronic Timesheet System
EV	Electronic Visit
EVV	Electronic Visit Verification
EVVR	Electronic Visit Verification Repository
FTP	File Transfer Protocol
FVVD	Fixed Visit Verification Device(s)
GPS	Global Positioning System
HCBS	Home and Community Based Services
HID	HID Global (maker of FVVD devices)
IDAM	Identify and Access Management
IHSS	In-Home Support Services
JSON	JavaScript Object Notation
N+1	Needed plus One Extra
OWIN	Open Web Interface for .Net
PHI	Protected Health Information
QR	Quick Response
RFI	Request for Information
SaaS	Software as a Service
SEI	Software Engineering Institute (at Carnegie Mellon University)
SOAP	Simple Object Access Protocol
SOC	System and Organizational Controls
SQL	Structured Query Language
SSAE	Statement on Standards for Attestation Engagements
VN	Vendor Neutral
VPN	Virtual Private Network
WPCS	Wavier Personal Care Services
XLS	Excel worksheet
XML	Extensible Markup Language

### **RFI Section 8, Subsection 2- Narrative**

Since 2003, PCT has equipped healthcare providers, payers, and state agencies with flexible hosting, managed services and cloud-based software solutions that continue to evolve based on the ongoing needs of healthcare related service delivery. We have deep experience in multi-vendor interoperability and data integration:

- Data integrated from 70 plus healthcare applications into the leading data warehouse in Long Term Post-Acute Care
- Industry shaping experience gaining access to required data from closed systems
- 3,500+ EDI payer integrations

More about PCT:

- 175+ years Healthcare IT experience across executive team
- 150 employees with more than 50% dedicated to customer success

- Technology-driven solutions for 6,500+ facility base
- 200+ healthcare/IT partnerships

### **RFI Section 8, Subsection 3- Option 7**

The benefits of this approach, when compared to purchasing and customizing a single vendor EVV solution are summarized in Table 1 in the RFI Response Overview.

### **Attachment A**

### **CMIPS RFI #32236 Questions**

### **RFI General Questions**

1. *Describe how your company delivers this type of electronic verification solution or service in similar Medicare and Medicaid settings, or other similar health care settings for consumer directed personal care and/or home care service delivery. Include a description of the population characteristics of individuals currently served by your system(s) and include the number of members.*

Prime Care Technologies, Inc. (PCT) provides this solution and service by hosting a national EVV provider whose transaction volume exceeds 100 EVV visits processed per second during busy daytime hours. The national EVV provider serves approximately 500 Agency locations in 45 States including California and the District of Columbia, processing multiple millions of visits for recipients of in-home services. We process millions of Medicare claims through our clearinghouse each month. And we have developed and delivered thousands of data integrations for system requirements similar to the data exchange between EVV platforms and the California CMIPS system.

2. Provide a detailed description of the EVV System:

Proposed System Concept Summary Diagrams

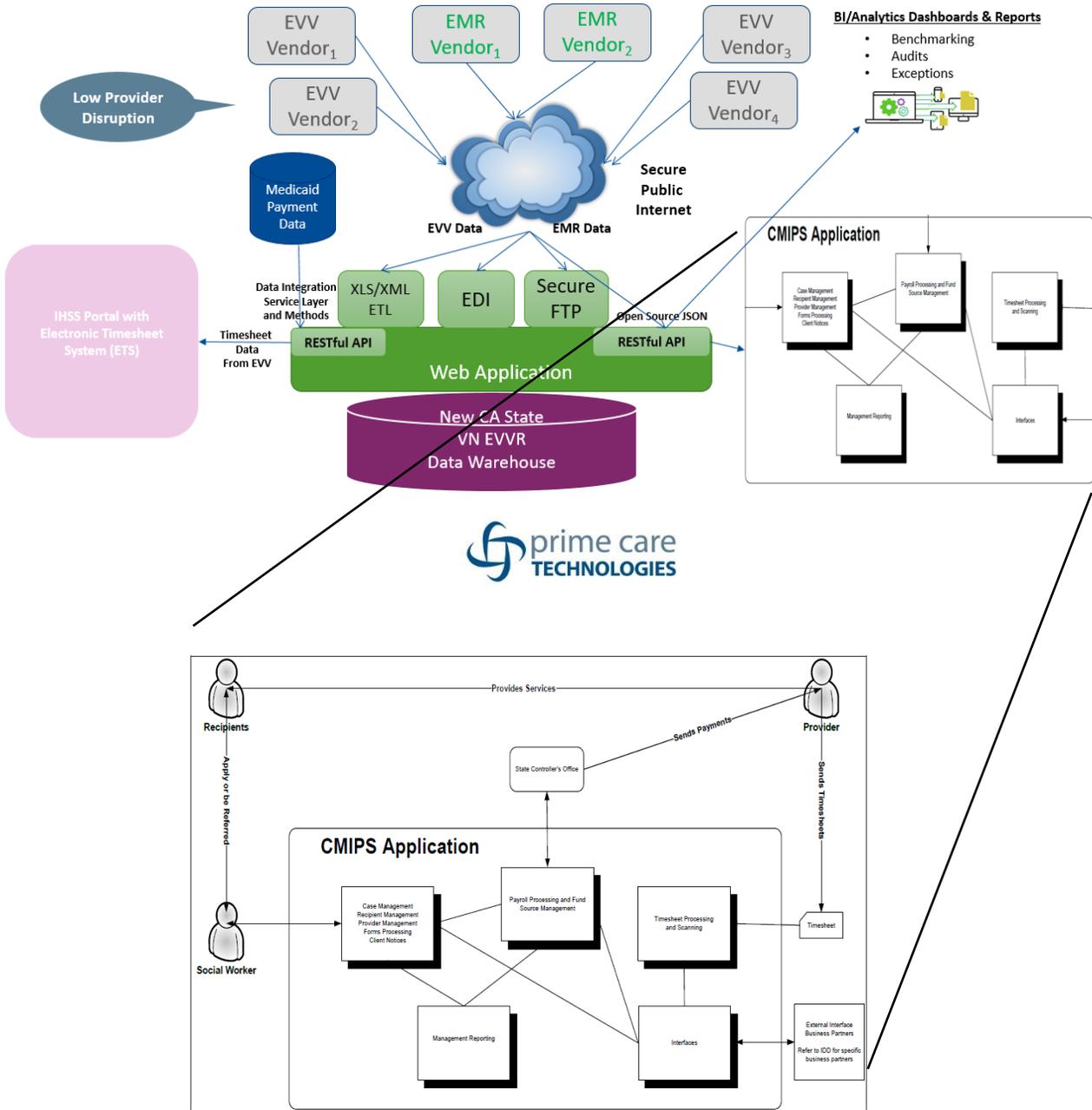


Table 2: Block Diagram of PCT's VN EVVR Data Warehouse integrated into CA CMIPS





\* Can be added in future phases

**EV Entities:**

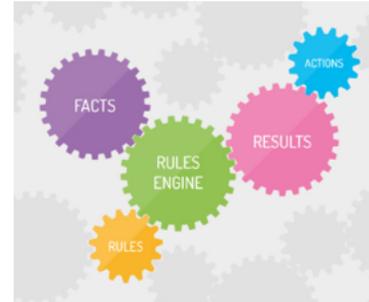
- Recipient
- Provider
- Care plan
- Schedule

**ETS Entities:**

- Independent Provider
- Hours
- Dates
- Pay Period

**EMR Entities\*:**

- Recipient
- Treatments
- Orders
- Schedule



**Rules Engine:**

- Compares Data Elements
- Alerts on Rule Discrepancy
- Rules Configuration & Management



**Table 3: Rules Engine and Alerting Subsystem**

a. *Functionality of the system including the devices, methods of data collection, technology and infrastructure requirements for both individuals receiving services (Recipients) and service providers (Providers), (e.g., land-line telephones, cell phones, in-home fixed device, tablet, internet, GPS).*

The PCT Vendor Neutral EVV Repository (VN EVVR) is designed to support an unlimited number of EVV solutions from various 3<sup>rd</sup> party providers. We are currently developing a version of the VN EVVR to address the needs of the Individual and Agency Provider models. We expect that medium and large-sized Agency Providers in California are already operating a variety of vendor-delivered EVV solutions, including the one that PCT hosts.

b. *Describe how your EVV solution could meet challenges inherent to California. Include challenges specific to the large volume of Recipients and Providers and how to address the fact that approximately half of IHSS and WPCS Providers are family members and/or live in the household with the Recipient.*

Because the PCT VN EVVR supports multiple 3<sup>rd</sup> party EVV platforms, family member and resident providers living with recipients can use any Agency, county, or state provided EVV system, including systems tailored to support the disabled, the blind, and

those whose primary language is not English. By delivering a vendor neutral solution for EVV, the state of California can stimulate a rapid increase in 3<sup>rd</sup> party EVV solution support for various unique challenges in the California home health market. Note that any decision to 'standardize' all of the California EVV system data collection/reporting on a single commercial EVV solution will require many Agency providers to 'rip and replace' what they have already purchased for EVV. For the Agency Provider model, existing already installed EVV systems in California connect and integrate into the PCT VN EVVR without any changes in Agency EVV hardware or software, therefore no re-training or disruption to the focus of home health assistants delivering continuous in-home services to recipients.

- c. *Security features of the system that confirms the identity of both the Providers and Recipients and how that data is kept secure.*

The VN EVVR identity and access management (IDAM) services are based upon the Microsoft Active Directory Federated Services (ADFS). Server side of VN EVVR will implement ADFS 2016 including token authorization manager and application group manager. Client side will implement ADAL and OWIN. All code developed for VN EVVR is built using a commercial secure coding toolset that promotes software development practice adherence to OWASP benchmarks. The SaaS hosting for the VN EVVR services uses a defense in depth approach, including firewalls, VPN, Intrusion Detection Systems (IDS), and email filtering. During development stage, real recipient data is automatically anonymized at high speed to create accurate test data sets where the PHI is de-identified. As a result, no one sees the actual PHI of any patients during development and integration.

- d. *Data collection, including information identified in this RFI Section 5 Proposed Environment.*

Items 1-2 in RFI Section 5 Proposed Environment are present in all 3<sup>rd</sup> party EVV systems, and the VN EVVR will enforce rules which normalize time zone treatment, alphanumeric data typing, and field lengths thus ensuring the quality, accuracy, and completeness of all the date, time, service type, provider, recipient, travel time, and location information. Additional payroll data such as sick leave and PTO will be tracked. The VN EVVR will support many-to-many relationships between recipients and providers. It will include (i) online form based signature technology, and (ii) an online mode for editing data. The VN EVVR code supports various globalization/localization standards for multilingual support, including i18n (IBM), g11n (IBM/Sun), and L12y (Microsoft). The VN EVVR rules engine includes a mechanism to trigger various specific alerts based on inbound transaction data values. This rules engine also supports alerting based on calculated and compared values. If preferred, a RESTful API interface to the CMIPS platform can be implemented for near real time data integration, using JSON. The VN EVVR also delivers data to CMIPS using various ETL methods and data formats such as XML or CSV, or it uses a web services interface such as SOAP.

We recommend Option 2, where the new system replaces all manual timesheets for the Individual Providers, per our system diagrams on pages 4 and 5 of this response. This is

an efficient and automated approach. Once again, the VN EVVR can deliver new validations and rules that cleanse the Individual Provider time/attendance/payroll type data. Once again, that data can be submitted to CMIPS in near real time using RESTful JSON, using ETL/XML/CSV, or web services. Options 3 and 4 are also new methods of automation and integration for Agency providers that the VN EVVR can comprehensively support in specific code for that purpose, along with a complement of validations, rules, and alerts to cleanse data and notify personnel of data anomalies.

- e. *Features that address the requirement that allows Providers to modify or “fix” information (i.e., if they forget to check in/out).*

The VN EVVR includes a web application for adding/editing all of the user data that is also automatically submitted to the system from EVV or EMR systems.

- f. *Features that conform to the concept of being minimally burdensome.*

The VN EVVR allows existing installed Agency EVV solutions to work seamlessly with the system. This eliminates the potential burden of causing California based agencies to remove their existing EVV solutions and replace them with a single vendor EVV approach.

In addition, the VN EVVR can eliminate the burden of paper timesheet processing. Timesheet data will be extracted from EVV visit data for Independent Providers, stored in the VN EVVR, and passed into the IHSS ETS portal backend database, per the system concept diagram on pages 4 and 5.

- g. *Features of the system that conform to the Americans with Disabilities Act (ADA) and address needs of special populations of Providers and Recipients, such as developmental disabilities and visual/hearing disabled.*

The VN EVVR will support any of the 25 plus vendors of independent 3<sup>rd</sup> party EVV systems, several of whom provide feature rich support for ADA and special population requirements. This enables Agency choice and encourages competition among EVV vendors for market share in California by adding more and more support for ADA requirements.

- h. *Features of the system that address the needs of special populations that cannot be near electronic devices.*

The VN EVVR supports landline telephones by leveraging the 3<sup>rd</sup> party EVV telephony solution support for landlines. The VN EVVR provides support for providers and agencies to enter EVV data well after caregiving sessions with recipients who have no access to electronic devices, and then submit the mobile device locally cached data to the VN EVVR when an internet connection becomes available.

- i. *Features of the system that address the provision of EVV in rural areas where technology infrastructure may be limited or unavailable.*

The VN EVVR supports all of the 25 plus vendors of independent 3<sup>rd</sup> party EVV systems. Many of these vendors provide features to capture EVV data locally on tablet and/or smartphone devices, and then submit the data to the backend EVV servers and, by association, the VN EVVR when an internet connection becomes available.

- j. *Additional features the system offers outside of EVV.*

The VN EVVR offers a rules engine and alert processing subsystem that can automatically notify admin and functional users of a variety of data anomalies. The solution includes an integrated data integration engine supporting thousands of related integrations for Medicaid, Medicare, EDI transactions, web service interfaces, and RESTful API. The VN EVVR adds additional capabilities in a multi-phase solution such as EMR integration for larger agencies and eligibility verification.

- k. *Service level metrics including system availability and system capacity.*

The VN EVVR runs via SaaS in our Tier III data center located in Suwanee, Georgia. Our data center includes 9 locations in the United States, including two in northern California: Sacramento and Santa Clara. These facilities are SSAE SOC 1 Type 2-compliant, with N+1 redundancy for all ping, pipe, and power services. This redundancy level can be extended to all of the storage, database servers, and application servers of the VN EVVR. The VN EVVR server collections can also be load balanced to allow for a higher number of users simultaneously accessing the system. The system will be delivered with a minimum of 99.9 % uptime.

- l. *Contingency plans for system outages or unavailability.*

N+1 system components are available in the primary data center for immediate use in the event of specific subsystem server or storage instance or component failures. In the event of larger regional disasters, the entire SaaS can be available for traffic cutover and usage in any one of nine national data centers in the United States. PCT's data center provider also has a Disaster Recovery Data Center. All of our partner's data centers are SSAE SOC 1 Type 2-compliant.

PCT has designed our data center environment and associated operations to mitigate the effects of disasters. Further, PCT utilizes automated server and data communications network monitoring systems. Our N+1 redundancy design throughout the infrastructure allows for failure of a particular core component without impacting service to our customers. Redundant components are the core of PCT's service solution; this level of fault tolerance is provided as a standard to all PCT customers.

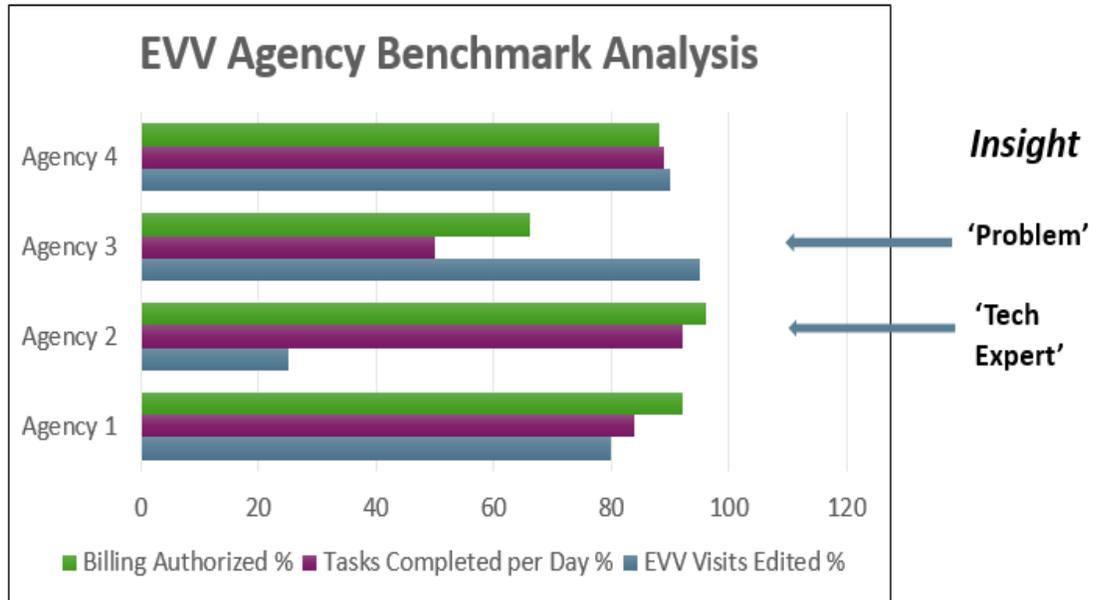


- m. *Flexibility of the system to implement changes and how quickly changes can be made. Describe how the system has built in flexibility such as the ability to meet business needs or make changes through simple configuration set up and/or configuration changes.*

The VN EVVR software is designed and developed using Agile/Scrum methodology. Twice a month sprints and weekly deployments mean that new features, fixes, and functional extensions can be deployed with maximum speed. The data warehouse model includes code first principles and Microsoft Entity Framework based separation of concerns. This allows for rapid data model and web application changes without re-factoring. The dashboard, reporting, and analytics subsystem includes the ability to quickly expose new SQL views for ad hoc analytics and new dashboard widget creation and installation.

- n. *Types of analytics and reporting provided.*

The VN EVVR offers specific dashboards and reports that provide admin and functional users with insight into Agency performance, potential fraud, and long term trends. The dashboard, analytics, and reporting subsystem can be rapidly developed to the specifications of the various user personas, and will be a key part of development efforts in the modified off-the-shelf efforts. For example, as shown in Table 4 below:



**Table 4: Agency Benchmark Analysis**

- o. *Typical account set up time and check in/out time for Providers and Recipients.*

The EVV system we currently operate averages less than one minute for simple telephony session data collection, for visit data submissions covering services provided to recipients that are substantially the same as the 25 IHSS services defined on page 3 of the RFI. Setup and configuration for Agency accounts in the VN EVVR should average under one minute for a system admin.

- 3. *Describe if/how the system groups or categorizes tasks to simplify system operation, tracking, Provider and Recipient use, etc.*

The VN EVVR at the data model level organizes all tasks into categories, and then connects each category to specific workflow functions, rules transactions, and data views for dashboards, reports, and analytics.

- 4. *Describe the system’s capability to interface with other systems, for eligibility, timekeeping, payroll or data collection purposes.*

The VN EVVR includes the primeCONNECT data integration platform, which is a mature data integration engine used in production for a wide range of EDI, XML, CSV, web service, and RESTFUL API interfaces with other systems. This data integration engine will drive the support for multi-vendor EVV systems in the Agency Provider and Individual Provider models, as well as the connections and data exchanges with the CMIPS and IHSS ETS.

5. *Describe your experience with implementing EVV systems including high-level timelines for implementation and training for all user populations. Describe implementation challenges and lessons-learned. Describe how to overcome implementation challenges. Distinguish implementation(s) for government entities versus private entities. If implemented for state entities, please identify which states and provide contact information.*

A phased implementation plan for the installed Agency Provider EVV systems can be completed in less than one year. Individual Provider model can also be supported very rapidly with existing 3<sup>rd</sup> party EVV systems. Our methodology will be to divide implementation into a set of chunks that combine specific custom software development with support for targeted user functions and services. The security model within the VN EVVR specifically supports data access granularity and compartmentalization, so that statewide regulator views of aggregate EVV and EVV analytics are readily isolated from the data entry and data submission views provided to Agency and Independent Providers. PCT is engaging with other states to propose our VN EVVR solution. We recognize the State of California's unique requirements that require additional targeted software development.

6. *Describe how to overcome implementation challenges inherent to California such as the change management for a large and vulnerable population. Describe mitigation strategies that could be used to address challenges.*

New technology like QR code support can quickly resolve persistent EVV system challenges like rapid and accurate identification of recipients and their detailed care plans. QR code changes and distribution/installation can also be handled by Independent and Agency personnel. On the back end services side, the basic Agile/Scrum methodology, and high speed delivery of new functions via frequent code deployments in the Software as a Service (SaaS) model provides a level of flexibility and agility that can meet change management challenges with catered and bespoke software services.

7. *Discuss strategies you have employed to garner customer satisfaction and include any satisfaction survey data, if available.*

In Agile/Scrum software projects, a key principle that drives high customer satisfaction is the active presence in multiple weekly standup meetings, where working code and working end to end system function is shown to key users who can provide very direct feedback. This grounds the system development and deployment effort in the real requirements and needs of the user population. It also flushes out new or changed requirements. And it brings product owner stakeholders onto the team in a manner that commits them to the success of the effort. PCT conducts regularly scheduled stakeholder meetings including clients to discuss usability, training, project and change milestones, success measurements, and feedback.

8. *Describe the response to your EVV from a wide range of Recipients and Providers with a wide range of disabilities including blind and deaf and/or low literacy levels.*

Our multi-vendor and open systems approach is designed to connect the EVV 3<sup>rd</sup> party vendors with robust ADA support in their solutions for the Recipients and Providers that need these specific levels of system capability. Instead of setting a course for developing ADA capabilities on

one platform only, the various Agency and Independent Providers serving the disabled community can select any of the 3<sup>rd</sup> party EVV systems that meet their specific needs. And these 3<sup>rd</sup> party solutions can, of course, submit EVV data to the VN EVVR.

9. *Discuss ongoing maintenance of EVV systems.*

Software maintenance such as bug fixes, database admin, and potential data archiving of older transactions over time is the same for this kind of data warehouse application as many other similar ones we have developed, deployed, and maintained for over 14 years. The Fixed Visit Verification Devices, when in use, have a rather long Mean Time Between Failure. They most typically become obsolete due to recipient moves. The QR code approach is highly promising for helping to manage rapid change in recipient conditions, for related identification/recognition of recipients at the start of visits, and for recipient moves.

As a policy and practice, PCT performs daily backups of all data on its servers. Customer's data is replicated to our off-site business continuity/disaster recovery center in Dallas Texas for added security and location diversity. Our backup process stipulates that we perform daily (7 days a week) backups, weekly backups, monthly backups and annual backups.

As a managed hosting service company, we own, maintain and manage our equipment to ensure peak performance and high availability. Any maintenance requiring downtime will occur during a maintenance window so that service interruptions to your users have minimal or no impact. PCT requires change control measures including customer notification and confirmation prior to applying changes.

10. *Describe if/how the EVV solution can leverage the current IHSS Portal with the ETS feature and the pros and cons of doing so.*

This maybe a straight forward development phase effort for the VN EVVR requiring a small amount of additional requirements discovery followed by Agile development. The mature primeCONNECT integration engine makes the data exchange aspect a relatively simple task, to the extent necessary. At this early stage it appears that one option is for ETS data to come over from the 3<sup>rd</sup> party EVV solutions and populate existing data models in the IHSS portal directly, to account for the 70-80% of the served population that will not use the ETS portal directly. It is also possible that the primeCONNECT integration platforms ability to parse and reformat data may be required to prepare the data before it is exchanged with the IHSS portal backend. There do not appear to be any cons to adding this flavor of data exchange integration to the project.

11. *Describe how an EVV solution can be effectively implemented for both the Individual Provider and Agency Provider employment models.*

Individual Providers can access and use 3<sup>rd</sup> party EVV solutions provided either at the State level, County level or through Agencies willing and capable of extending their EVV systems to Independent Providers. Existing Agencies with 3<sup>rd</sup> party EVV systems in place can, of course, use the new VN EVVR without replacement and retraining fees, except if forced to convert to a new single vendor system.

12. *Describe your business model (e.g., Software as a Service, Commercial Off-the-Shelf, Modified Off-the-Shelf, custom built, transactional).*

Our business model includes deployment and delivery in a SaaS Model. We will be treating the project as modified off-the-shelf, mixing existing technologies and solutions like our primeCONNECT Integration Platform, primeVIEW data warehouse framework, and embedded BI/analytics engine...with custom built software modules and services to meet the specific requirements of the RFI as described herein. The system is also highly transactional in the sense that the EVV visits are treated as one of the key transaction entities in the systems data model.

13. *Describe the costs and fee structure of EVV solution(s) for customers with requirements comparable to the IHSS, WPCS, and other HCBS Waiver programs. Differentiate between Individual Provider and Agency Provider employment models. Identify both one-time and on-going costs. Describe how the cost model would scale up to accommodate the large number of IHSS and WPCS Providers.*

The major fee structure elements for our system include an EVV visit transaction fee, development services charges for the multi-phase software development efforts associated with creating a modified off-the-shelf solution specific to California needs, annual maintenance charge for the VN EVVR system once production deployed, and a one-time charge from Prime Care Technologies to each 3<sup>rd</sup> party EVV vendor for the development of the data integration between their EVV system and the VN EVVR.

We have compared our business model to a sole vendor-based solution approach in other states within the United States. We do not require new hardware in agencies that already have EVV. We do not charge perpetual monthly amounts for field hardware like FVVD. We do not have separate implementation charges because of the leverage we have from our existing data center facilities. We do not impose rip, replace, and retrain obligations on major Agency Providers that are already invested in 3<sup>rd</sup> party EVV.

Our analysis of several other states that have started down the single vendor path is that PCT's Option 7 VN EVVR solution's total cost of ownership, over a five year period, is estimated to be upwards of five times less than single vendor solutions.

14. *Describe how the EVV solution for personal care service that must be implemented in 2019 could be expanded to accommodate the 21st Century Cures Act home health care service EVV requirement by January 1, 2023.*

Adding support for Medicaid home health by 2023 is designed into the current VN EVVR system, with specific phases and services like EMR support, Medicaid eligibility, and Medicaid claims management already in our phased plans.

15. *Describe the different means of communication (e.g., notifications) the system is capable of producing such as letters, e-mail, text, and phone in multiple language formats for visually and hearing disabled including large font, braille, and audio text.*

The system provides output support for various report and letter formats. Email based notifications for alerts are supported. ADA support is delivered at the EVV 3<sup>rd</sup> party system level, as are support for large font, braille, and audio text.

*16. Describe how your system is kept current and how it keeps up with technology changes*

PCT's technology staff, leadership, and architects are constantly trained in the latest methods and tools for software development. We are actively involved in various code communities like Codeplex. Many of our architects are SEI certified by Carnegie Mellon University. We constantly evaluate opportunities to introduce new mobile, front end, and back end technologies to enhance a system. The QR code opportunity for this project is one such example.