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D-18 System Design Document

Version 2.0

May 30, 2013

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Revision History

Version	Date	Modified By	Description
1.0	04/25/2013	Scott Cerreta Alan Perry	Initial draft for submission to SOV
2.0	05/30/2013	Alan Perry & Functional Team	Delivered to SOV & CMS Edits / Added content from the State of Vermont review Edits / Added content from internal Subject Matter Experts Internal review content additions and changes Incorporation of content and changes from final review session Addition of functional specification documentation

1 Introduction

Vermont Health Connect (VHC) will enable a new solution for Vermonters and Vermont small businesses that will provide simplified access to health insurance at a reduced cost. This project will implement a new technology platform, new software packages, new operational and customer services support functions, and a new public-facing portal as the components of the Vermont Health Benefit Exchange (VT HBE) that will operate in an integrated fashion. This exchange will meet the federally-mandated Affordable Care Act (ACA) requirements and objectives and will be delivered on a timeline that is consistent with the Centers for Medicaid and Medicare Services (CMS) needs.

The Department of Vermont Health Access (DVHA) has contracted with CGI to help ensure that the Vermont Health Connect new solution will be operational and prepared to accept enrollments for the initial Open Enrollment period that begins October 1, 2013. This project will deliver the technology infrastructure that will serve as the marketplace for individuals, families, and small businesses to learn, compare, and purchase private health insurance, calculate any applicable Federal-provided tax credits and/or Vermont provided subsidy, and determine their eligibility for enrollment within Vermont's public health Medicaid plan.

1.1 Business Context

The business goal for the Vermont Health Benefit Exchange is to increase the number of insured by reducing barriers to obtain affordable health insurance. To achieve this business need the Exchange will:

- Help individuals and small businesses identify and purchase affordable coverage
- Increase the number of insured Vermonters by leveraging the use of existing and emerging capabilities in the insurance and information technology industries
- Allow individuals and small businesses to comparison shop, thus facilitating competition among plans on price and quality and make selections that are best for them
- Determine eligibility for participation in the Vermont Health Benefit Exchange, advance payment of premium tax credits, cost-sharing reductions, and Medicaid (under income rules)

1.2 Functional Areas

The functionality of the VT HBE is partitioned into the following six key functional areas:

1. Eligibility and Enrollment

- Employer enrollment in an Insurance Small Business Exchange
- Individual enrollment in a qualified health plan offered through the VT HBE
- Individual enrollment in Medicaid and Children's Health Insurance Program (CHIP)
- Individual appeals and exemptions

2. Plan Management

- Plan certification, recertification, and decertification
- Issuer contracting and integration

3. Financial Management

- Premium determination including Federal Advance premium tax credits (APTC) and Federal Cost Sharing
- Premium determination including Vermont State Premium Assistance, Vermont Cost Sharing
- (Plan assessment, reinsurance, risk adjustment, and risk corridors functions) (Future / deferred functionality)
- Individual and issuer reconciliation

4. Customer Service

- Manage responses to information requests and requests for service
- Efficient distribution/management of requests across phone, web, paper, and face to face

5. Communications

- Communications and outreach strategies; content and messaging
- Measurement/reporting of communication effectiveness

6. Oversight

- Federal oversight of Exchange operations
- Insurance Exchange management and operations

1.3 Purpose of this Document

This System Design Document (SDD) describes the State of Vermont's proposed system design solution for a Health Benefit Exchange developed in accordance with the regulations and requirements set forth by the Affordable Care Act (ACA.) Additionally, this solution will be developed and implemented in a way that will help ensure compliance with several government and industry regulatory oversight standards, including those established by the Health Insurance Portability and Accountability Act (HIPAA), Federal Tax Information (FTI), Payment Card Industry (PCI), and the National Institute of Standards and Technology (NIST.)

The SDD describes design goals and consideration and provides a high-level overview of the system architecture. The SDD provides information regarding application components, information models, technology components, security implementation, and information on how these work together. This document serves several purposes including:

- A blueprint for the Vermont Health Benefit Exchange technical solution
- Input for the CMS Detailed Design Review
- Input for further decision making
- A basis for detailed design tasks, development, and testing

This solution design will also establish the initial Services Oriented Architecture (SOA) solution for the State of Vermont. As such, this solution will be establishing several technical capabilities that will result in the need to achieve additional objectives that will also be defined or referenced in this document.

- Input for the State of Vermont Information Technology (IT) Governance policies, procedures, and processes.
- Input for the State of Vermont operational support teams and their associated processes.
- Input for the State of Vermont for potential leverage within other future Vermont healthcare-based applications and the other state functions.

Additionally, at the time of writing this document, the specific requirements for integration with the Federal Hub for the exchange of data with CMS and other Federal agencies continues to be changing. CMS has notified Vermont that the initial set of integration components will be modified to support new requirements; however the specifics and timeline has not been provided.

Consequently, it should be noted that this document has been written with the assumption that future versions will be released and will continue to be updated in future phases, as additional details are clarified concerning business requirements, data exchange specifics, SOA Governance, operational oversight functions, and updates from CMS as additional information becomes available.

1.4 Referenced Documents

The following documents are referenced in this document.

Exhibit 1: Referenced Documents

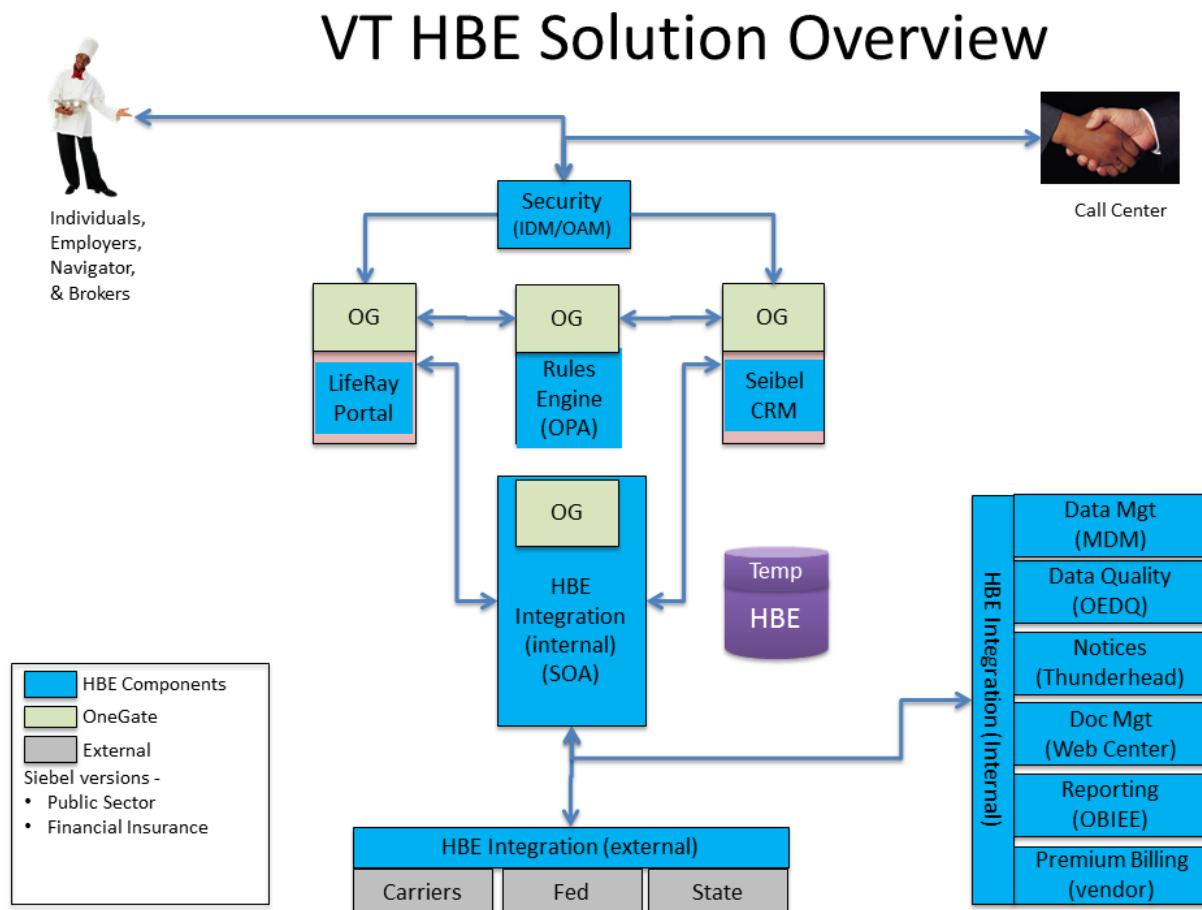
Document Name	Document Number	Issuance Date
Guidance for Exchange and Medicaid Information Systems	Version 2.0	May, 2011
Exchange Reference Architecture	Version 0.99	March 16, 2011
Collaborative Environment and Life Cycle Governance – Exchange Reference Architecture Supplement	Version 0.91	March 16, 2011
Harmonized Security and Privacy Framework – Exchange TRA Supplement	Version 0.95	March 16, 2011
CMS Technical Reference Architecture – Catalog of Minimum Security Controls for States Supplement	Version 0.1	June 8, 2011

2 Solution Overview

The Vermont Health Benefit Exchange business and functional solution is a fully-integrated technical platform that provides a highly-automated application, and an enrollment and eligibility experience for customers. The ACA's "no wrong door" approach is achieved through a blending of the OneGate, Siebel, and OPA products which supports a streamlined process for Consumers, Navigators, and Brokers.

To meet the ACA Exchange requirements, a selection was made of industry-leading Web-based, commercial-off-the-shelf (COTS) products integrated around a Service Oriented Architecture (SOA)-based Enterprise Service Bus (ESB). The Exchange, through its ESB, will integrate with various outside entities, state and federal systems to satisfy the business goals of operating an e-commerce website offering Qualified Health coverage for Vermont citizens. The Exchange solution architecture and functionality will support both Individual and Small Business capabilities for Vermont. This exchange solution is based on a configurable, COTS-based architecture.

Exhibit 2: VT HBE Solution Overview



Although there are numerous benefits to this approach, one of the most powerful is the ability it provides the State of Vermont to efficiently leverage resources. For example, rather than having to devote significant project resources to application development efforts, resource efforts can be leveraged to validate state policies and workflows as they are defined and configured. This allows the Vermont Health Benefit Exchange to meet the aggressive timeframe for the initial pilot and deployment to the general public more efficiently and prepares a foundation for the Exchange to evolve as requirements dictate. The Exchange leverages this type of implementation approach as a key advantage as both federal and state legislative policies concerning health benefit exchange are still evolving.

The VT HBE solution provides multiple channels for Vermont's individuals and families to determine their health insurance eligibility through a self-service portal. The VT HBE provides a highly interactive and easy-to-use interface for all applicants (both individuals and employers) and supports the subsequent selection of qualified healthcare plans.

The Vermont Health Benefit Exchange will employ IT system architectures which support the Health Insurance Exchange, Medicaid, and the Children's Health Insurance Program (CHIP) provisions and requirements outlined in the ACA.

The core applications of the VT HBE solution are OneGate, Siebel, and Benaissance (Financial Management) and are explained in the next section of this System Design Document.

2.1 Vermont Health Benefit Exchange Components

The VT HBE will enable Vermonters and Vermont small businesses to provide simplified access to health insurance at a reduced cost. The VT HBE project will implement a new technology platform, new software packages, new operational and customer services support functions, and a new public-facing portal. These components will not only serve as the integrated solution for the VT HBE, but also as the foundation upon which for the State of Vermont (SOV) to build and integrate other state applications.

Exhibit 3: Vermont Health Benefit Exchange Components



Enterprise Security – Factor Authentication controlling user access. User authorizations will be managed by functional role assignments. The current architecture recommends reuse and extends the security framework available within the VT HBE. The extension will focus on the application user roles. In addition, appropriate encryption and digital signatures will be used to help ensure data exchanges are secure.

Liferay Portal – The Liferay Portal is Java based and runs on any computing platform capable of running the Java Runtime Environment and an application server. It provides a single, secure, and rich user-centered design for VT HBE stakeholder interactions via a Web browser with support for Web 2.0 technologies facilitating collaboration, feedback, interoperability, and information sharing. The VT HBE Portal provides capabilities for public and registered user access compliant with security policies related to authentication, authorization, and channel encryption. Registered users can access their user preferences, check application status, initiate inquiry/correspondence, payments, view transaction status, and look at their current plan/benefits. The Liferay Portal provides the user interface for the VT HBE based on the UX2014 standard provided by CMS. Once the user accesses the VT HBE, data is sent through HTTPS to the Oracle Policy Automation (OPA) (the Rules engine) to determine access to different functional areas within the VT HBE solution. The Business Rules within the OPA and Rules engine allow VT HBE to determine situations such as when a user is eligible for qualified health plans (QHP), when notifications will be sent to users, and allow users to run reports.

The Liferay portal will also display information from Thunderhead NOW, the notification generation service. Thunderhead NOW sends information to be displayed in the Liferay portal as well as the Siebel CRM Customer Relationship Management (CRM) Modules – Public Sector base, which handles customer-based information such as Help Desk, Email Response, group policies, and Individual coverage.

Over HTTP, the Siebel CRM Modules also provide information to the Oracle Secure Enterprise Search, which also gives information to the Oracle WebCenter to handle content management, document management, and the VT HBE portal.

Policy Encoding – Oracle Policy Automation (OPA) will be used to create and manage the encoding of formal policy rules for Eligibility Determination. OPA is a system designed to codify complex policy into a set of electronic rules, as well as generate “Interviews” designed to obtain the necessary data to evaluate those rules. Externalizing business rules from the workflow and application logic provides explicit rule visibility, effective centralized management by business owners, and immediate influence on the solution without incurring any development overhead.

Business Rules Engine – Oracle Business Rules (OBR) is a component of the 11g SOA Suite package, designed to provide two types of configuration based business rules specification: tabular and procedural, both of which can be generated in an English-like fashion by developers or business analysts. OBR integrates natively with SOA composites, serving as an easily connected resource through the Mediator or BPEL engines as part of orchestration or internal flow control. The rules themselves are entirely independent of code, meaning that changes can be made dynamically, while the system is operational, without coding changes, restarts or service disruption. Within the VT HBE, OBR will provide two fundamental types of rules implementation: complex validation checking (for example, does a provided zip code match the address being given) and parameterized dynamic business cases (for example, how many ID Proofing questions need to be answered correctly to achieve a “Pass”).

Process Management – The VT HBE solution will leverage a combination of Oracle OPA and Siebel CRM for workflow management. The functionality provided by these components enables the automation of workflows and orchestration of processes associated with eligibility, enrollment, account management, plan and contract management, and financial management processes. Process implementers connect each step of the process to services available through the ESB and assign tasks to specific users.

Enterprise Service Bus (ESB) – The Enterprise Service Bus, implemented as a component of the overall Fusion Middleware family of Oracle products, is the Oracle Service Bus (OSB), a class-leading

technology with roots back to BEA and WebLogic Server. OSB provides a comprehensive array of service oriented facilities designed to integrate, virtualize and manage services in a complex, shared-service environment such as VT HBE. It provides consistent Quality of Service (QoS) in terms of security, flexibility and performance across all of the logical architectural “bands” of the VT HBE architecture (external facing, integration layer and internal component-to-component). It is designed to connect, mediate and manage interactions between disparate logical and physical entities through the cataloging, promotion and governance of policy-based service virtualization, along with end-to-end service pooling and volume-sensitive throttling. The OSB combines messaging, Web Services, XML, data transformation, and management to reliably connect and coordinate application interactions. It reduces the need for custom construction at each point of integration. The systems and applications need no awareness of the underlying communication protocols or physical location; they see a consistent virtualized interface ‘signature’. Because of this virtualization, services can be upgraded, moved, or replaced without disrupting existing business systems or modifying applications.

Data Management – This component is made up of the structured, semi-structured, and unstructured operational and transaction data repositories. This component comprises the data warehouse, transactional database (user profile, eligibility information, enrollment information, payment information etc.) and the ability to log and monitor transactions. The architecture will provide the capability to develop reports and dashboards for the VT HBE and be delivered via the portal.

Reporting – Oracle Business Intelligence (OBIEE) will be used for report generation. OBIEE provides the capability to generate reports necessary for HIX, State, Federal entities, Employers, and other entities as defined. . Some reports will be run from the OBIEE dashboards and others created from Siebel CRM’s native reporting capabilities including BI Publisher.

Notifications – Thunderhead NOW will be leveraged for communications from the SOV to plan participants, employers, and others. Thunderhead NOW enables the VT HBE to have a high-level of personalization and relevance in communications, with a single engine to manage the delivery of content across multiple delivery channels (for example, print, web, email, SMS, mobile, and social networks).

Thunderhead NOW is a document (Notice) generation system used by the VT HBE to generate outbound correspondence for both large and small mailings of form letters and notices. The notices generated by Thunderhead NOW are both mailed as physical copies and stored as images in the VT HBE Content Management system (Oracle WebCenter Content), along with identifying metadata. Notice requests will be both manually initiated by users and system initiated by events like annual enrollment. Notice requests driven interactively by users will launch a web generation session while events will utilize a batch interface.

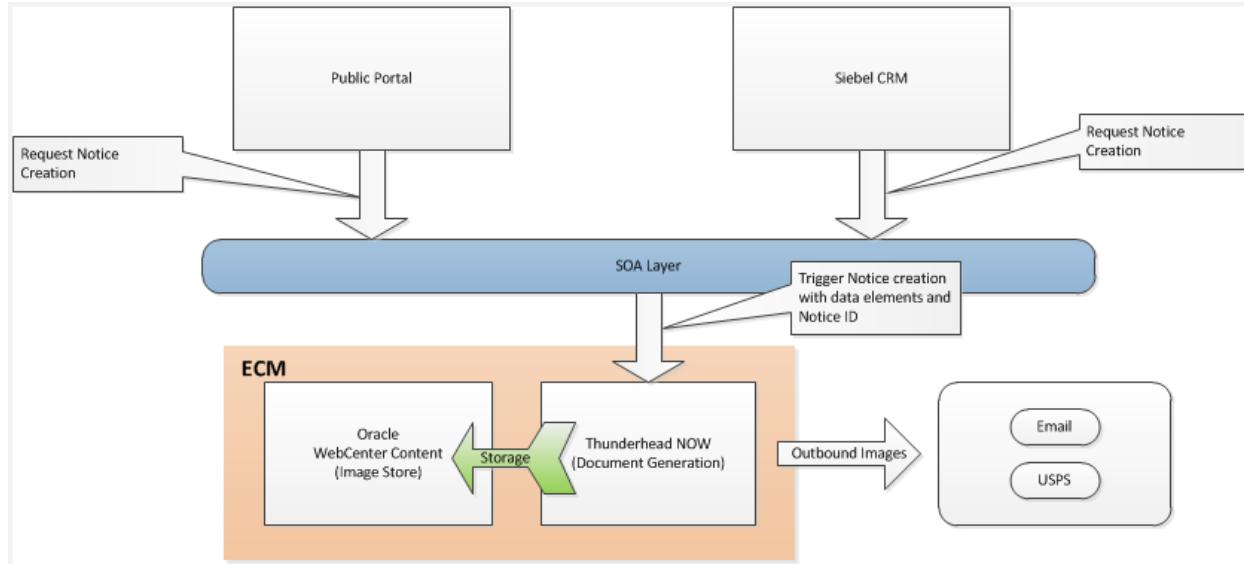
The Thunderhead NOW system is comprised of the following components:

- Thunderhead NOW Application Server: Thunderhead NOW processes requests on an application server. This server will be responsible for document generation and PDF file production.
- Letter Templates: Each notice will have a respective Thunderhead NOW template that contains the programming logic to create the notice including look & feel, mail merge criteria, and security rules on what can be edited and what cannot.
- Printers and Email Servers: All notices created by Thunderhead NOW will be distributed in hard copy (paper/mail/certified mail) or soft copy (email) based on user preferences. Additionally some notices will only be available in certain formats (hard or soft copy but not both) which based on that format, may also initiate additional back office tasks (i.e. certified mail, FedEx).

Other Thunderhead NOW features:

- Transformation services to get Data Elements for Notice creation (via SOA). This includes the lookup of fields such as account number, name, address and other account details that are required to generate a notice.

- WebCenter Capture to store a PDF copy of the Notice – There are two copies of notice that are created in the paper print channel – one copy to store within the WebCenter Content Management system and the other batch of notices which is a consolidated set of notices that is sent to the fulfillment center for printing.
- FTP/SFTP notice images for printing to the Fulfillment center – This is the SFTP job to copy the batch of consolidated notices to the fulfillment center which is outside the network boundaries of the CGI Federal cloud.



Thunderhead NOW will not directly communicate with any solution database in order to pre-fill information into the notice templates such as name or address. All the information will be supplied to Thunderhead NOW with the SOA service call to generate the document. This puts the SQL responsibility on the calling system.

Thunderhead NOW requires a database and has its own version control system built into it. All Thunderhead NOW objects are stored within the database and can be exported using Thunderhead NOW export utility. The Thunderhead NOW objects are XML objects.

Thunderhead NOW generates notices based on events taking a template and applying mail merge functionality to put variable text into the generated notice document. Each notice call will take a From Entity, a To Addressee entity and an About Entity describing the source, the destination and the written about entity. For example, this notice is from the exchange to a broker about a SHOP or this notice is from the SHOP to the carrier about an employee. Each notice will have a template defined that includes informational layout (fonts, emphasis, spacing), informational context (actual language used), informational variables (variable substitution set), and informational mapping (substitution mapping to database schema). Each notice will be maintained and updated using the Thunderhead NOW Content Studio.

Data Exchange – This component is being built as part of the SOA architecture to isolate the VT HBE from the external systems. The primary function of the data exchange component is to provide a Plug and Play interface for any external provider who needs to interface with the VT HBE. This helps ensure that external interfaces can be added easily and quickly by following standard interface rules. It provides a secure Web services-based system interface enabling electronic interaction between the VT HBE and the Federal, State, and Insurance Payers. The data exchange layer will also be able to support a batch interface for those systems that require.

1. **Federal Gateway:** This data exchange component will support real-time interface with the Federal Hub to get income and citizenship information. It will also have batch interfaces to support

submission of documents to CMS for verification and to accept plan certification information from CMS. It will also perform audit and logging.

2. Carrier Gateway: This data exchange component will support both real-time and batch interfaces to numerous Carrier (QHP) systems as part of this solution. It will also perform audit and logging.

Payment Processing – This function will be enabled through a web service integration with Renaissance to execute the VT HBE financial transactions.

Infrastructure – Provides an efficient infrastructure for deploying various components of the solution. The solution could either be deployed in a virtualized infrastructure or in a cloud infrastructure (Infrastructure-as-a-Service) that offers elasticity to meet the varying computing capacity needs for the VT HBE.

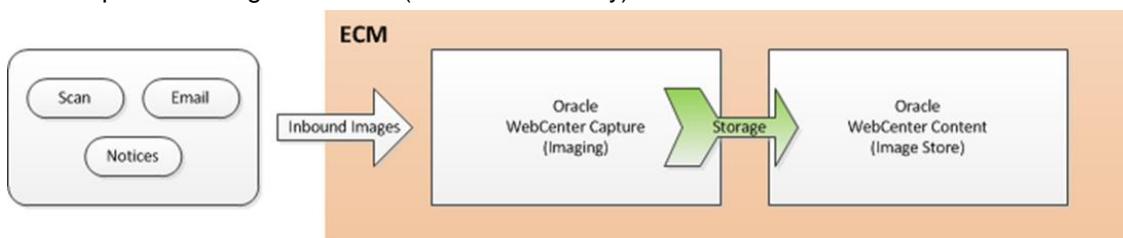
Document Management – WebCenter is the software tool that will be used for document management in the VT HBE solution. The two main components of WebCenter are WebCenter Capture (used for scanning,) and WebCenter Content, (used for storage.) WebCenter (also known as Oracle Document Management) will be leveraged to store and retrieve documents submitted by the users. This could include a copy of a Birth Certificate, Driver's License, Passport, Utility Bill, Tax Forms etc. to prove citizenship, residency, income, and so on.

- **WebCenter Capture**

Oracle WebCenter Capture is an image capture product designed to enable document imaging on an enterprise scale. It oversees the creation and preparation of digital images from paper-based sources for import into the Oracle WebCenter Content repository.

Features and capabilities:

- ▶ Oracle WebCenter Content to commit images.
- ▶ Scan workstation for scanning and indexing images.
- ▶ Import electronic PDF Notices generated by Thunderhead.
- ▶ Import incoming HBE email (HBE mailbox only).



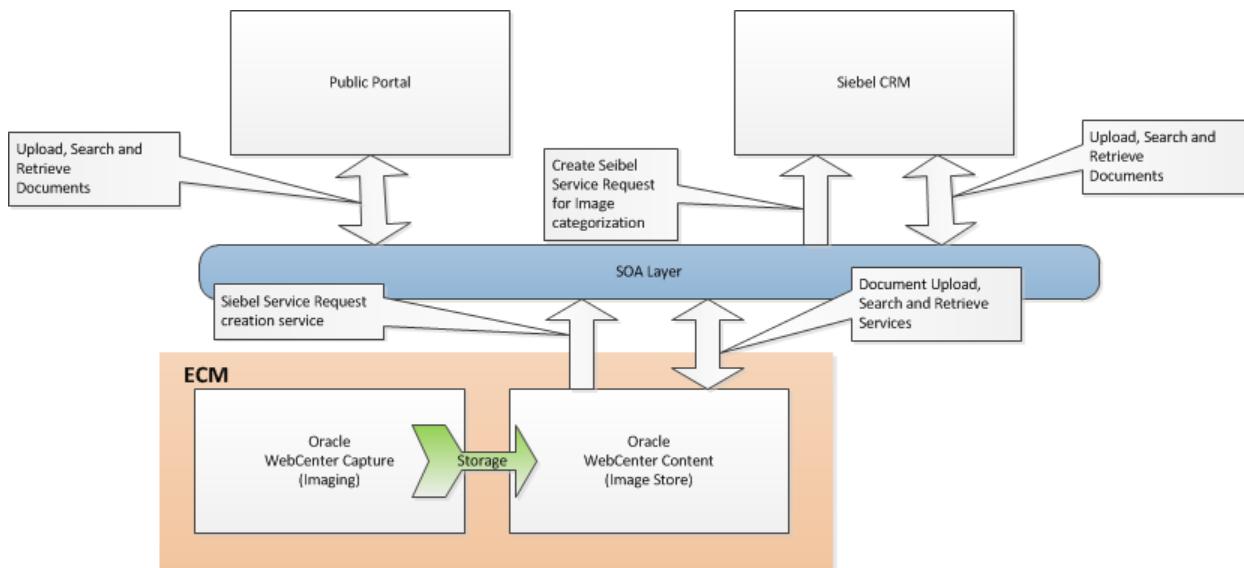
- **Oracle WebCenter Content**

Oracle WebCenter Content is the content management repository for all of VT HBE documents (images). Oracle WebCenter allows controlled access to images through its own web interfaces as well as through a set of services designed by CGI team for the VT HBE.

These services include an upload, search and retrieve service which facilitates the Portal to upload and view images stored in the Oracle WebCenter repository.

Features and capabilities:

- ▶ Uses Oracle WebCenter Capture to import electronic images.
- ▶ Portal to upload, view and retrieve images (via SOA).
- ▶ Siebel to upload, view and retrieve images (via SOA).
- ▶ Siebel to create a Service Request for image review and classification (via SOA).



Jellyvision Online Training Module – Jellyvision is an Multimedia production company that will be contributing a Microsite and a Storybook in HTML and a Flash-based learning tool. These three sections will be links connected to the initial Vermont Health Benefit Exchange landing page, which is currently in development.

- **Storybook** –An HTML based experience, for Large and Small Business Employers and that will help Vermont employers understand the following:
 - ▶ How the Affordable Care Act will affect them and their insurance options
 - ▶ What Vermont's Health Benefit Exchange is
 - ▶ How the Vermont Health Benefit Exchange works
 - ▶ Demonstrate the State of Vermont's commitment to making health information and health coverage more accessible
 - ▶ Help eligible employers decide whether to provide insurance through the exchange or drop insurance and let their employees apply as individuals
- **Interactive Conversation** – First a Flash-based experience, and then after that is completed we'll create an HTML5 version of it. The Conversation will be aimed at individual, family and small business employee audiences to help them understand the Affordable Care Act and how Vermont's Health Benefit Exchange works.
- **Microsite** – Landing Page (Webpage) for Larger Business Employees. For folks with more than 50 full time employees that come to the Interactive Conversation, Jellyvision will segue them out of the Conversation and take them to a landing page with more information specific to their employment situation. It will contain FAQs, links and helpful information for users. The landing page will also provide a link back into the Conversation if the user would like to learn how the Exchange works for other audiences.

2.2 OneGate Application Design Overview

The platform that OneGate uses is comprised of the following major products:

- Liferay Portal
- Oracle WebLogic
- Oracle Siebel CRM
- Oracle Policy Automation (OPA)
- Oracle Services Oriented Architecture (SOA)/Enterprise Service Bus (ESB)
- Oracle 11GR2 Database
- Oracle Health Insurance base
- Oracle Public Sector base

This technology stack is configured to provide the State of Vermont with a platform for supporting Individuals, Small Businesses, Caseworkers, Brokers/Navigators, and other stakeholders through an easy-to-use, high-availability online Health Insurance Exchange system.

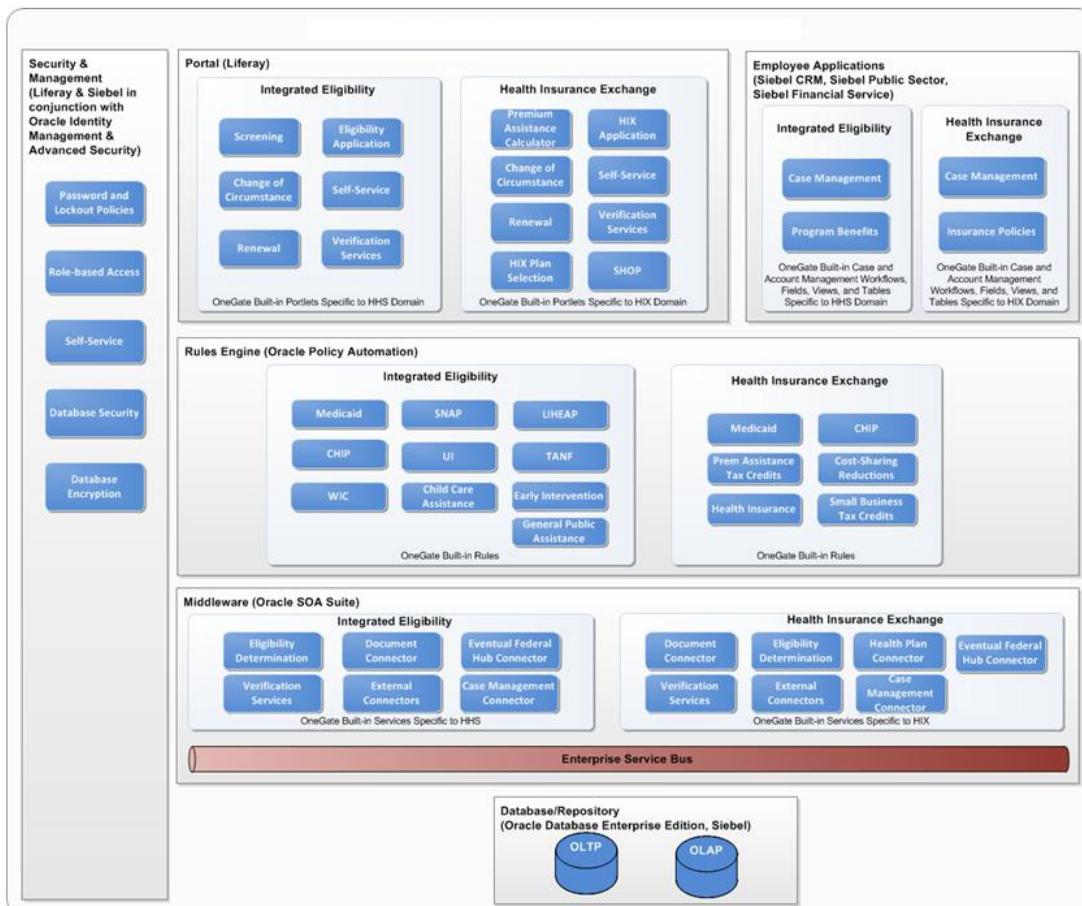
As previously mentioned, the OneGate design is an accelerator, implemented through configuration steps, allowing policy rules and workflows to be revised by program owners, and using SOA with loosely-coupled interfaces to connect to the State Gateway, Federal Hub, and Insurers.

This section describes the OneGate functional and technical design. More information regarding the OneGate system may be found on the CMS CALT system.

2.3 OneGate Functional Design

The diagram below illustrates a high-level overview of the OneGate Functional Design. For more information about the functional design and specific workflows within OneGate, see the Exeter OneGate User Manuals, and the Functional Specification Documents (FSD) located within this SDD.

Exhibit 4: OneGate Functional Design



2.4 OneGate Technical Design

The OneGate solution leverages Oracle SOA/ESB, Oracle WebLogic Server, Siebel CRM, Oracle Policy Automation, and the Oracle database to provide self-service portals and integration capability. The Individuals, Employees, Employers, and Brokers/Navigators portals are integral to the OneGate product as well as the Siebel customer relationship management (CRM) call center capability.

The VT HBE system is front-ended by the Oracle WebLogic and Web servers with requests for Liferay portal pages. Oracle SOA/ESB Web services are handled by WebLogic while access to Siebel goes through the web server first then through an adaptor to WebLogic.

The OneGate application features two types of portlets: interview portlets and regular business process portlets. Both portlet types are deployed in Java containers in the WebLogic server and configured within the Liferay portal with associated portal pages used to provide the look and feel. Upon execution of an interview portlet, the Oracle Policy Automation (OPA) determination engine is invoked and the interview

begins. The advantage of using the OPA is that rules can make it easy to alter the interview without changing the configuration of the system or Java coding, and consequently having less costly sustainment.

Exhibit 5: OneGate Architectural Components

OneGate Architectural Components

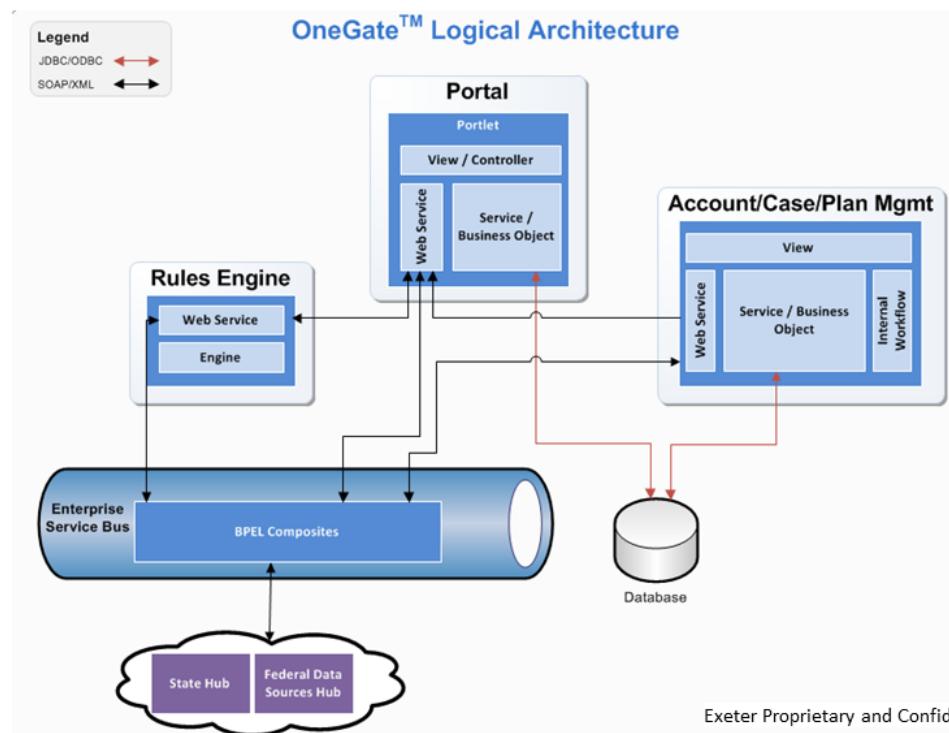


Exhibit 6: OneGate System Requirements and Software Versions

Tier	Minimum System Requirements	Software
Database	64-bit Oracle Enterprise Linux 5.9 8GB RAM 100GB HD	Oracle Database 11g 11.2.0.1 JDK 7u9
Siebel	64-bit Oracle Enterprise Linux 5.9 8GB RAM 50GB HD	Siebel Business Applications 8.2.2 32-bit Oracle Database Client 11g 11.2.0.1 JDK 1.6+ Oracle WebTier HTTP Server 11.1.1.6
SOA	64-bit Oracle Enterprise Linux 5.9 8GB RAM 50GB HD	SOA Suite 11.1.1.5 JRockit Java JDK 1.6 Oracle WebLogic Server 10.3.5 Oracle Fusion Middleware Repository

Tier	Minimum System Requirements	Software
Application	64-bit Oracle Enterprise Linux 5.9 8GB RAM 50 GB HD	Liferay 6.1.2 Enterprise Edition JRockit Java JDK 1.6 Oracle WebLogic 10.3.5 OPA 10.4.1

Interview Portlet Design

The OneGate portlets are developed using a Java Model View Controller (MVC) Spring framework with a Hibernate data abstraction layer. The four-tier architecture is implemented as follows:

- Client Tier (Presentation tier or Application tier)
- Web tier, Enterprise JavaBeans Tier (or Business tier)
- Enterprise Information Systems Tier

In the Plan Management java program, the tiers listed above are physically located on the same Java Virtual Machine (JVM) and are developed so that each tier provides a specific type of functionality to the OneGate application.

OneGate Client Tier

The Client tier consists of programs that interact with the user. The Client tier displays a screen and prompts the user for input, and converts the user's response into requests that are forwarded to software on a component that processes the request and returns results to the client program. Web Clients will access resources located on the Web tier. The multi-tier clients can access components located on tiers other than the tier where the multi-tier client resides.

OneGate Web Tier

The Web tier accepts requests from other WebLogic servers that were sent using POST, GET, and PUT operations, which are part of hypertext transfer protocol (HTTP) transmissions. The two major components of the Plan Management Web tiers reside on the Web tier and are called by a request from a browser client that operates on the Client tier. The Web tier generates a hypertext markup language (HTML) output stream that is returned to the Web server, which in turn transmits the data to the client. JavaServer Pages (JSP) is different than a servlet depending on the container that is used. JSP uses custom tags to access the bean.

Enterprise Information Systems Tier

This tier provides a variety of resources and support connectivity to resources, and defines all the elements that are needed to communicate between Java application and non-Java software.

OPA Rule Base Design

Flexibility

The Oracle Policy Automation (OPA) rule base allows the VT HBE to integrate rich, interactive interviews for individual and family application, change of circumstances, and Small Business employer application, into VT HBE onboarding and case-handling processes. This business rule model supports both customer self-service and staff processes. OneGate users are presented with streamlined questions that pertain specifically to them based on their situation, delivering a personalized approach that improves customer experience and satisfaction.

SOA Composite Design and OSB

The OneGate SOA composites are an assembly of services, service components, and references designed and deployed together as a service invocation within the OSB, which provides the governance, discovery, execution efficiency, security and management for all service endpoints in the VT HBE system.

Each composite serves as a distinct repository of data mapping, transformations, orchestration and execution logic, business rule application, and connectivity to multiple resources, both external and internal.

The key composite structural elements are as follows:

- Service Components are the building blocks of a SOA composite, the general architecture of which conforms to Service Component Architecture (SCA), a contemporary standard for service construction that is both flexible and modular. At the logical level, each service component is hosted in its own service engine container, and as messages to that service are received, each component within the composite executes its one physical “engine” in turn.. For example, a message requiring BPEL orchestration services is sent to the BPEL service engine. The various service engines providing functionality to the SOA composite are:
 - ▶ BPEL, providing process orchestration and storage (in-memory or persistent) of process details requiring state awareness. Using the orchestration capabilities of BPEL, the designer describes a workflow, including the access to other services and external resources, that executes the desired sequence of steps for the service being provided.
 - ▶ Business rules (via OBR) enable you to design a dynamic, non-coding set of constraints or evaluations of data or conditions that drive outcomes, or determine execution flow, based on business rules.
 - ▶ Human tasks provide a User Interface (UI) based on Oracle's Application Development Framework (ADF) to provide a rich presentation layer for users to carry out work steps, reviews, authorizations and other business functionality that serves as an integral part of overall orchestration within a given service composite.
 - ▶ Mediator (an embedded ESB within the composite itself) routes events (messages) between different components, carries out mapping and transformations and serves as a primary façade to the service composite.
- Service interfaces provide the outside world with an entry point to the SOA composite application. The Web Service Definition Language (WSDL) file of the service describes the signature of the interface itself to external applications. The binding connectivity of the service describes the protocols that can communicate with it, for example, Simple Object Access Protocol (SOAP)/HTTP or a Java 2 Platform Enterprise Edition (J2EE) Connector Architecture (JCA) adapter.
- Within the composite, references (via a very broad array of pre-configured and programmed adapters) allow messages to be sent from the SOA composite application to external services in the outside world, referenced services that provide an orchestrated workflow with necessary functionality to carry out the primary function of the service itself
- Wires allow you to graphically connect the following components in a single SOA composite application for message communication:
 - ▶ Services to service components
 - ▶ Service components to other service components

Service components to references SOA composites can publish an interface and be called directly, or they can exist within an enterprise service bus, which virtualizes their endpoint, provides governance and management, and enhances the service contract with security and performance facilities. For VT HBE, all SOA composites will be implemented within a single logical implementation of Oracle Service Bus (OSB).

The logical architecture of the OSB implementation encompasses three functional zones which separate distinct levels of interoperability, security and access. These layers are:

- **Internal Mediation Layer**

This mediation layer is entirely within the application domain, behind the firewall and never accessed directly by external resources. It is provided as ‘mediation’ between the various technology components within the system, such as LifeRay, Siebel, IDM, WebCenter Content, and

others. The intent is to eliminate any point-to-point architecture in order to provide maximum flexibility, maintainability and performance. This layer also serves functionally as a granularity “adapter” in the sense that it provides an abstraction layer within which the two very different object models of Siebel and Liferay can carry out communication in a flexible and performant fashion.

- **Integration Layer**

The integration layer provides a similar mediation service between the entirely internal services of the Internal Mediation Layer and the public-facing services of the External Service Layer. It provides a “mapping” service between the XML artifacts flowing to and from the outer edges of the system into the object model used by the internal components such as Siebel and LifeRay. Additionally, it provides a state management and business logic capability to track multi-step communication exchanges with external partners such as CMS and the insurance Carriers, as well as performance enhancements using such techniques as caching.

- **External Service Layer**

This layer is not comprised of SOA composites at all, but rather direct OSB-based interface implementations. These consist of basic service signatures and virtualized endpoints that can call, and be called by, external partners to the VT HBE. There is a one-to-one relationship between these service endpoints and corresponding external service partners, such as CMS, Carriers, SERFF, Renaissance and others.

Note that the OSB provides for the following infrastructure support facilities for all services, regardless of the architectural layer they reside within logically, though the nature of the implementation for each of these layers will differ, based on the varying degree of external exposure that exists:

- Governance
- Security
- Performance
- Mapping
- Translation
- Monitoring

Siebel CRM Design

The OneGate Siebel HIX specific configuration package has the following components:

- Shell Scripts - Shell scripts that are used in the installation process
- iHelp - OneGate seed iHelp XML files
- ADM - Application Deployment Manager XML files that populate OneGate metadata records
- Excel Loader - Microsoft Excel file that populates OneGate metadata records
- Repository - A Siebel repository file (.dat file) that has all the latest Siebel code objects
- Srf - A compiled Siebel Repository file that is used by the Siebel Object Manager
- Logs - Log files generated during the installation process
- Images - Image files
- Css - Cascading Style Sheets (CSS) files
- Swt - Siebel Web Template files

3 Assumptions / Constraints / Risks / Scope

3.1 Assumptions

The following are the assumptions associated to the Vermont Health Benefit Exchange solution:

- Federal Data Services Hub will be implemented and provide the necessary data for verifying eligibility by aggregating data from different federal systems.
- Carriers will upload plans and plan data to SERFF. After the data is uploaded, the State of Vermont Plan Manager will initiate a Web Service (hosted by the VT HBE) that will send the plan to the VT HBE system.
- Scalable infrastructure for VT HBE will be provided and maintained by the CGI Cloud services from the Phoenix Data Center (Primary site) and Philadelphia Data Center (Secondary Warm site).
- The necessary data will be provided and no data conversion will be required.
- No legacy system integration is required for compares or conversions, or has been deemed out of scope for this project.
- The OneGate product provides the framework to meet all federally mandated requirements in a timely fashion to be incorporated and validated the Testing and SOV Acceptance Teams.
- The VT HBE Environment will leverage both Virtual and Physical Hardware environments.
- The following Oracle Products will be established and implemented in the VT HBE enterprise framework:
 - ▶ Oracle Policy Automation
 - ▶ Oracle Identity Manager
 - ▶ Oracle Access Manager
 - ▶ Oracle Virtual Directory
 - ▶ Oracle Internet Directory
 - ▶ Oracle Policy Modeler
 - ▶ Oracle SOA Suite Oracle SOA suite (BPEL, Mediator, Oracle Service Bus and Business Activity Monitoring.)
- The VT HBE will leverage several Siebel modules, including but not limited to, the following:
 - ▶ Siebel Public Sector CRM Base Option
 - ▶ Siebel Health Insurance Base Option
 - ▶ Siebel CRM Base
 - ▶ Siebel Tools
 - ▶ Siebel CRM Web Channel for Customers - up to 15 Objects
 - ▶ Siebel Individual Coverage
 - ▶ Siebel Group Policies
- Premium processing will be provided by Bennaissance that is self-contained within their separate operational environment. Bennaissance operates within a Tier 4 hosting infrastructure.
 - ▶ Microsoft SQL Server 2012 will be utilized. SQL Server will be hosted on a Windows 2008 R2 active passive cluster.
 - ▶ Data at rest encryption will be met by using SQL Server Transparent Data Encryption using the AES 256 encryption algorithm to meet CMS and Vermont security requirements.
 - ▶ For disaster recovery needs SQL Server Always on Availability groups in synchronous commit mode will be used to replicate data between datacenters in Omaha, Nebraska to Lenexa, Kansas.

3.2 Constraints

The following are the constraints associated to the VT HBE solution:

- The VT HBE solution has been sized to service Vermont's current population as a basis, and expected growth has been included with ongoing increases in client load. The performance of the database should stay consistent as the data population grows, with proper monitoring and actions that support database best practices.
 - ▶ Specifically, for the initial release it is anticipated that the total potential number of population that may utilize the HBE solution is 65,000 and that the system has been designed to support 400 concurrent users.
- It is expected that the VT HBE environments comply with Federal and Vermont State requirements.
- The VT HBE solution environment configuration should be one supported by the OneGate COTS provider.
- The Vermont Integration Hub approach must work for all carriers involved in the SOV project.

3.3 Risks

The following are the risks associated to the VT HBE solution:

- Federal Data Services Hub implementation is not complete and/or the Federal Hub may have significant operational outage conditions and could negatively impact the VT HBE design, and operational services.
 - ▶ Mitigation: This risk will be monitored closely by the project team and changes to the Federal Hub design or implementation delays will be communicated to the VT HBE stakeholders so appropriate project adjustments can be implemented for successful completion of the VT HBE solution.
 - ▶ Mitigation: The VT HBE solution will be operationally configured in a decoupled approach to enable the necessary system functions to operate on an "alternative mode of operation" in the event that the Federal Hub is not operational at any time. The VT HBE solution will operationally test to determine the status of the Federal Hub throughout the VT HBE operational state. Once a negative operational state is identified, the solution will automatically switch to the alternative mode of operation.
- High-level VT HBE requirements defined may not identify specific functionality required, which could impact the overall scope of the project, which may be uncovered during detailed design and implementation phase of the project.
 - ▶ Mitigation: This risk will be monitored closely and if new requirements are identified during detailed design the project change control process will be followed.
- There are several functional and integration components being developed in parallel that increases risk when they are all brought together.
 - ▶ Mitigation: This risk will be monitored closely to help ensure timely completion project dependencies and communication of any implementation delays across component tracks. In addition, the detail testing plan will include scenarios to validate required functional and integration components.
- The introduction of SOA technologies such as ESB, BAM, BRE, Web Services and the general shift towards a real-time, service-based integration between systems could increase the integration risk because it is a departure from the older file-based transfer processes.
 - ▶ Mitigation: This risk will be monitored on an ongoing basis and more detailed risks will be raised and mitigated should the introduction of these technologies cause issues within the VT HBE environment.
- CMS continued changing of requirements and/or specific technical components within the Federal Hub, which may have an impact on the overall scope.

- ▶ Mitigation: This risk will be monitored closely, and if new requirements are identified during detailed design the project change control process will be followed.
- The VT HBE will be implementing the Exeter OneGate solution, which at the time of writing this document, is new and not currently in production.
 - ▶ Mitigation: The OneGate solution is built upon known fully operational Oracle technologies (Siebel, SOA, and Policy Server) and the open source tool Liferay Portal, and the OneGate specific components only “extend” these well-established tools. Additional testing is planned, including the testing to demonstrate the upgrade of the technical components.

3.4 Scope

The following are the Out of Scope items for the initial release of the VT HBE solution:

- Non-MAGI Medicaid eligibility
- Non Healthcare program eligibility
- ACD/CRM integration
- Synchronization with ACCESS
- Integration with Vision (PeopleSoft)
- The VT HBE initial release does not include functionality beyond Federal and State of Vermont requirements unless otherwise accepted through the project change control process.
 - ▶ One specific point of clarification is the Integrated Eligibility requirements, functions, and integration needs that will be addressed within a separate project scope. There is very limited ACCESS integration and remediation that is in Scope.

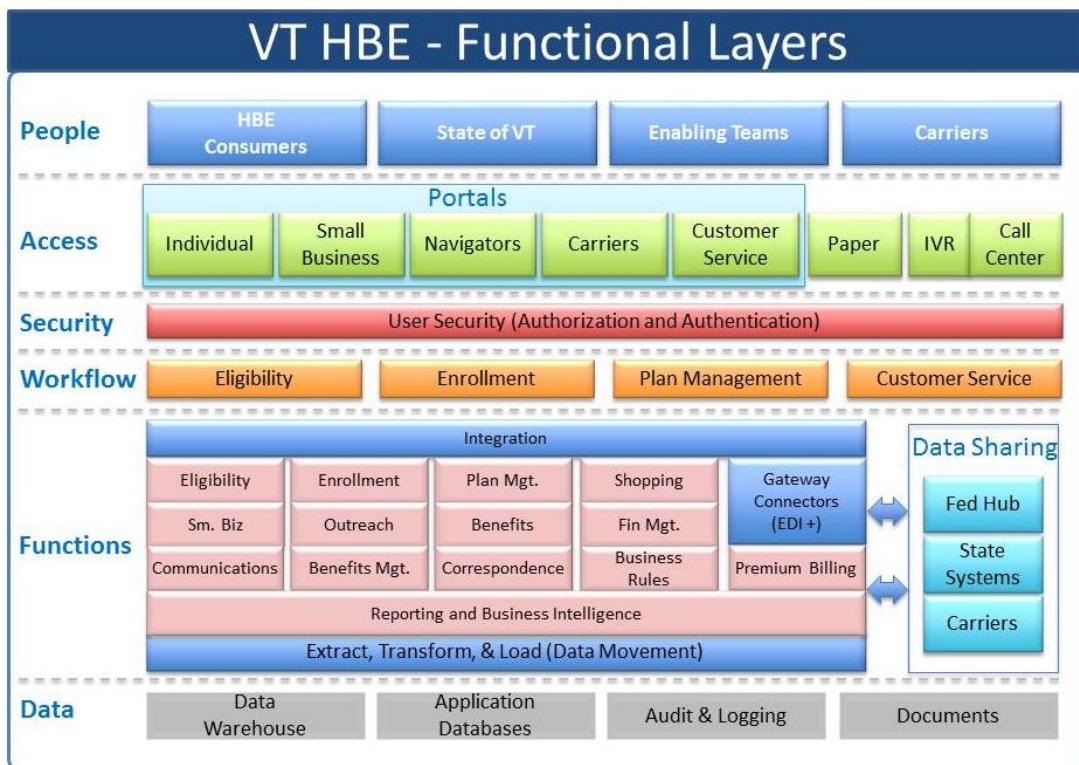
4 System Design

4.1 System Design: Functional Layers

The following Vermont Health Benefit Exchange (HBE) diagram breaks down the solution into functional layers providing a high-level overview of the system users, channels, and features.

Functional layer description:

- **People** – The types of system users accessing the VT HBE.
- **Access** – The channels in which system users gain access to the VT HBE.
- **Security** – The solution will provide user and system security that meets all Federal and State requirements.
- **Workflow** – The high-level workflows will be initiated by users while interacting with the VT HBE and each workflow will be made up of several functional components to successfully complete tasks. The solution will leverage system functions across workflows to provide a consistent user experience and minimize implementation cost.
- **Functions** – The system functionality of the Vermont Health Benefit Exchange solution Data. The system includes multiple secure databases for executing transactions on the VT HBE and providing an enterprise foundation for the SOV to leverage and build upon for future applications.

Exhibit 7: Vermont Health Benefit Exchange (HBE) Functional Layers


The VT HBE solution will be hosted in a Government Services Administration (GSA) Cloud environment that complies with FedRAMP for operations, security, and storage of data. Primary operations will be located within the CGI Phoenix Data Center (PDC) and have secondary “warm site” for failover in the CGI Philadelphia Data Center. The solution will be hosted on a three-tiered physical architecture with isolating firewall and load balancers for security and performance. The software solution will be implemented in four-tier logical architecture layers including Presentation layer, Application Layer, Middleware Layer, and database layer.

The Presentation Layer (Web), Application Layer, and Middleware Layer will use virtual environments built upon VMware ESXi hosts. Using virtual machines provides cost-effective utilization of hardware resources by allowing effective balancing of available resources to actual requirements. These virtual servers will be configured to provide a higher-level availability and as localized hardware failure conditions occur fail-over guest machines can be quickly brought online when needed or as load increases during critical operational (for example, open enrollment) time periods.

The Database layer is Oracle-based. The solution will use physical servers for each to provide the highest level of performance and reliability possible.

These components together will help achieve the mission of the State of Vermont to provide all Vermonters with the knowledge and tools needed to easily compare and choose a quality, affordable, and comprehensive health plan, and are explained in part in the next section.

4.1.1 Functional Layer Components

The following table described the components of the Functional Layer.

Exhibit 8: Functional Layer Components

Layer	Component	Functional Description
1	People / Stakeholders	Each Stakeholder group has a set of functions that are accessible to that group. Certain groups may have additional access depending on their role. For example, VT HBE staff and other stakeholders will have different rights depending on their assigned role, caseworker, supervisor, program manager, etc. The roles and access will be managed through Oracle Identity Management and Oracle Access Management.
2	Access / Channels	Channels provide multiple input/output display format types including Web client (http/https), secure email, faxed document, scanned document, fax, paper, and chat. Display format is applied outside the business process services, as a “view” of the content rendered. Separating business services for the content presentation provides reusability of both resource types.
3	Access / Portals	Portals support multiple user communities through a highly configurable portal framework. The OneGate / Liferay public facing portal adheres to the UX2014 usability standards.
4	Integration / Enterprise Service Bus (ESB)	<p>CGI's business process orchestration – the control of a specific sequence of execution steps in the provision of business functionality is manifested in two distinct levels:</p> <p>At a macro level, the application layer is decomposed into a set of functional areas that define a distinct business purpose; for example Enrollment, Financial Management, Plan Management, Verification, Eligibility, etc. This set of business-defined sub-application areas are consistent with the CMS blueprint for functional decomposition and provide a modularity that enhances flexibility and performance. At this business macro level, it is important to understand that functionality is provided through the choreography of many individual services, as well as UI, data access, high-level business and policy rules and workflows. For VT HBE, this means that any of these decomposed business functions can utilize one or all of the following components:</p> <ul style="list-style-type: none"> ▪ Siebel ▪ LifeRay ▪ OSB-based SOA services ▪ Oracle database ▪ OPA ▪ IDM ▪ WebCenter Content ▪ Thunderhead NOW <p>Note that, as choreography, there is no central directing mechanism; rather, the overall business functionality is a condition of event-driven chaining, where an event at the UI for instance drives a service call which triggers a change in the Siebel object model.</p>

Layer	Component	Functional Description
		<p>At a micro level, each SOA composite existing within the overall OSB implementation provides a very focused, service 'kernel' whose scope is defined by reusability, flexibility, performance and accessibility needs. At each of the general logical layers of the overall architecture – application, integration and external interface – these needs are different. Within the SOA composites themselves, Oracle tooling (JDev SOA editor) provides a connector style ability to construct a logical execution flow between mediator, BPEL, references and business rules through a graphical series of wires and nodes. Beneath this 'wire and node' visual construction metaphor, the internal SOA Suite elements are performing the following functions:</p> <ul style="list-style-type: none"> ▪ Mediator – serves as a 'mini service bus' within the composite, carrying out interfaces to external services, routing, transforming and mapping data ▪ BPEL – formal execution orchestration language that directs the execution of services and functions defined within the composite ▪ OBR – allows easy look-ups of dynamic, configured business rules that can be used at functional or routing decision points within the composite ▪ Adapters – provide the OOB capability to easily map to a known set of external services, from files and databases to large-scale ERP systems
		<p>Note that, in general, this distinction between micro and macro levels of process construction is perfectly mirrored in integration design. At a micro level, within the SOA composites themselves, integration takes place as an orchestrated exchange (with corollary mapping, transformation and routing) between external reference points. This includes provision for all the elements noted above – mediator, BPEL, OBR, etc., as they perform their role in integrating between, for instance, a data event at the UI layer and the execution of a CRUD action into a database.</p> <p>At a macro level, integration is a result of potentially many services and other functions choreographed into the movement of information or data across system layers. So, for instance, carrying out the integration of Plan Data into the VT HBE engages several SOA composites across all three logical layers of the system, Siebel as an ultimate repository, and the LifeRay portal as a human interface into the available insurance plans being managed by the Exchange.</p>
5	Workflow	<p>Some of the major workflow areas of the VT HBE solution are:</p> <p>Eligibility</p> <ul style="list-style-type: none"> ▪ Plan Management ▪ Case Management ▪ Small Business <p>Siebel CRM Public Sector's workflow capabilities enable automation of specific business policies and procedures such as Eligibility and Case Management. The use of workflow enables commitments to clients to be addressed and issues to be escalated to management automatically. With Workflow, overdue cases and unresolved issues can be automatically escalated so case managers are alerted to problems.</p> <p>In addition, OneGate has developed SOA composites utilizing Oracle SOA Suite 11g, providing out-of-the-box functionality for the Vermont Health Benefit Exchange. For example, customer actions like change of circumstance drive options for VT HBE selections and notifications and immediately alert caseworkers.</p>

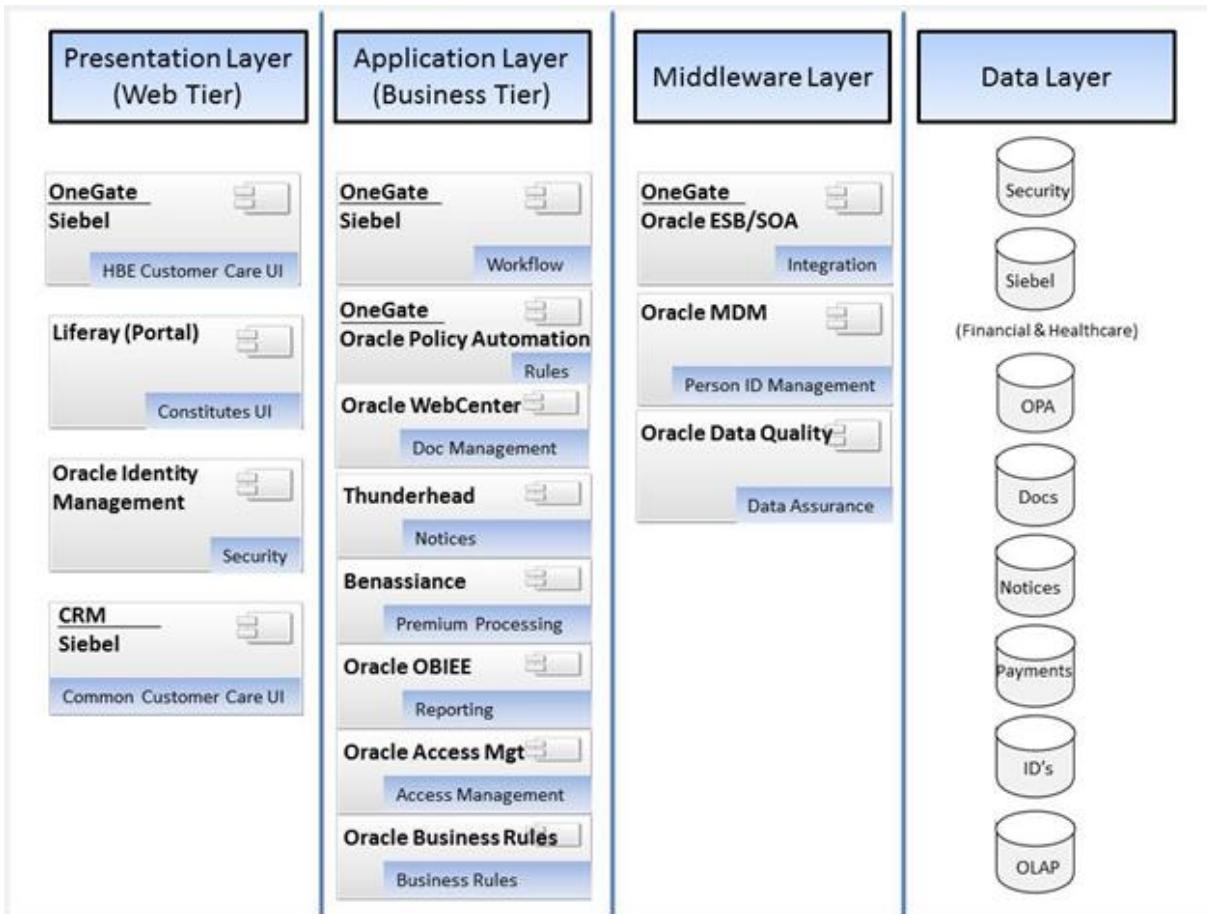
Layer	Component	Functional Description
6, 7, 8	Service Layers	<p>The Services Layers consist of a set of that provide core VT HBE functionality. The majority of these services are contained within the WebLogic application server.</p> <p>Application Services – This collection of services supplies the fundamental business capability, including plan management, financial management, benefit management, customer service, communication and oversight. These are exposed Web services that are orchestrated through the Oracle SOA Suite 11g. The Orchestration layer serves to translate communication differences between the application services as needed. Communication and orchestration is independent of the source and target application service modules. This complies with MITA solution, as defined by CMS.</p> <p>Technical Services – This group of helper services provides needed system utilities to the VT HBE solution application modules. The end user does not directly interact with this class of modules but does benefit from the resources they provide.</p> <p>Services included are:</p> <ul style="list-style-type: none"> ▪ Management of batch data updates or planned processes ▪ Centralized logging and system monitoring ▪ Caching of data and services to maximize performance ▪ Performance Monitoring ▪ Common Services <p>Policy Implementation – The VT HBE facilitates policy rules including MAGI, APTC and CSA (Cost Sharing Assistance) by leveraging the Oracle Policy Automation (OPA) tool.</p> <p>Business Rules – The general business rule specification/management capability is provided by Oracle Business Rules (OBR) engine, providing a user-friendly interface to non-technical business resources in the dynamic management of business rules such as validations and specific conditions and constraints that are subject to frequent change.</p> <p>Notice Management – The Thunderhead NOWcontent management system will handle certain forms of public document generation. Rated by Gartner Group as one of the leading solutions in its arena, this technology allows automated creation and assembly of high-volume communications delivered across multiple channels, including print, XML Messaging, Microsoft office documents (Word, Excel), PDF, E-mail, Web, or SMS & MMS for mobile devices.</p> <p>All document templates are XML defined, allowing dynamic change without reengineering. Generated documents will be stored in the document management solution.</p> <p>Integration Services – The Integration service components provide secure information exchange capabilities with sources such as the Federal Data Hub, Vermont State Systems, and the carriers. These gateways will support various types of protocols and standards and will support both asynchronous as well as synchronous messaging. Gateways also perform audit and logging.</p>
10	Data Management	<p>The tools used to manage data are listed below:</p> <ul style="list-style-type: none"> ▪ The VT HBE relational database, running on Oracle 11g ▪ Document and image management through Thunderhead NOW the Oracle WebCenter capture and Oracle WebCenter Content systems. ▪ A VT HBE Data Warehouse to enhance reporting capability ▪ Extract, transform, and load of incoming data sets using the Oracle tool ▪ Analytical reporting on program evaluation, business operations and transparency using OBIEE to support continuous improvement and transparency

Layer	Component	Functional Description
11	Shared Services	<p>Shared services are centrally provided and can be leveraged across the enterprise. Identity proofing is provided by the Federal Hub and user provisioning for the various stakeholder groups that use the VT HBE. The Vermont Health Benefit solution will leverage Oracle Access and Identity Manager.</p> <p>Oracle Enterprise Data Quality will be used to achieve the Address Standardization and validation (Oracle Enterprise Data Quality), Enterprise search (Oracle Enterprise Search) that provides the ability to search across systems, and CGI DMS system to process incoming and outgoing mails.</p>
12	Infrastructure	<p>Key infrastructure aspects of the Vermont Health Benefit Exchange solution architecture include:</p> <ul style="list-style-type: none"> ▪ Hosted on CGI Government Cloud ▪ The CGI Cloud Environment supports the necessary security and operational needs to ensure compliance for NIST, HIPAA and others as needed. ▪ Applications use a modern, N-tier Web architecture and are designed to handle user requests in an event-driven, real-time workflow ▪ Leverages cost-efficient server environments based on Red Hat Linux servers ▪ Servers are deployed with VMware virtual server technology, allowing multiple applications to co-exist efficiently on the same physical servers ▪ The VT HBE is designed for high availability. Hosted in a clustered, load balanced, fault tolerant infrastructure configuration. ▪ Our VM hosting solution allows CGI to provide the dedicated development environment within the requested 30 days of contract approval ▪ The Renaissance infrastructure supplies the Premium Processing functionality and is PCI compliant.
13	Security, Privacy, and Compliance	<p>Security and Privacy are mandated for HIPAA, PII, and IRS. Standards help ensure interoperability today and in the future. The basis for sharing components will be adherence to standards. The following standards are part of the proposed Vermont Health Benefit Exchange:</p> <ul style="list-style-type: none"> ▪ MITA, HIPAA EDI / ANSI X.12, NIEM ▪ ADA Compliance / W3C Web Content Accessibility Guidelines (WCAG) ▪ Security Standards (PHI, PII, FTI, PCI, IRS 1075 etc.) ▪ JSR 94 to integrate the rules engine services with business services ▪ UDDI v3 ▪ BPEL 2.0 / BPMN 2.0 to standardize the business process notation for easy portability to other BPM tools if needed for other state's ▪ SOAP 1.1 and 1.2, REST HTTP ▪ XML, FTP / FTPS, TCP/IP, WS-Security 1.0 and 1.1 ▪ Secured Socket Layer (SSL) certificates

4.2 System Design: Logical Architecture

The following diagram identifies the solution components comprising the Vermont (VT) HBE System Design in four layers, including the Presentation Layer, Application Layer, Middleware Layer, and the Data Layer.

Exhibit 9: Functional Layer Components



4.2.1 Logical Architecture: Presentation Layer

The Presentation Layer or Web Tier provides the new portal capabilities for the SOV to expand end user self-service capabilities. The SOV users will be able to complete the following Self-Service activities through the VT HBE portal:

1. Anonymous browsing of generalized content and obtain high-level cost estimate
2. Create an on-line account
3. Apply for private Insurance
4. Apply for Medicaid Insurance
5. Obtain feedback on application and eligibility status
6. Shop and compare plans
7. View existing plans
8. Pay Premium, one time, and recurring Monthly Payment options
9. View payment history
10. Contact customer service
11. Access reports and notifications

The current SOV systems have limited reporting capabilities. The addition of the VT HBE Portal will enable greater data capture on users for improved analytics and reporting. The Portal also has a robust set of Notification and Reporting capabilities including, but not limited to, Monthly invoicing, Financial notifications, Plan notifications, Benefits confirmation, Plan updates, and AHS communications.

4.2.2 Logical Architecture: Application and Middleware Layers

The Application and Middleware Layers will leverage technology solutions that provide SOA and specifically Enterprise Services Bus capabilities to access the data that will drive the enabling Portal capabilities highlighted above. This follows the direction provided by the Centers for Medicare and Medicaid Services (CMS) that clearly encourages state Medicaid departments to invest in technology solutions that enable streamlined business processes, provide higher degrees of automation, and focus on following industry standards in how systems communicate. Batch interfaces, in which information is sent on a predefined schedule, have given way to “services” that are used to transfer important information to other systems in real-time, as events occur. Instead of holding a group of activities until the end of the day and sending a file of updates to a related system, services allow each activity to be communicated in near real-time to the other system, creating a more synchronized set of systems and reducing lag.

Consistent use of services within an enterprise forms the basis of an event-based service-oriented architecture (SOA), in which systems utilize services to communicate with other systems on an as needed basis. Establishing an SOA in a complex environment, such as the VT HBE, requires an Enterprise Service Bus to manage the services.

The State of Vermont has selected the Oracle SOA Suite of tools as the Enterprise Service Bus (ESB) standard for the VT HBE. Establishing the ESB is only a small part of establishing the SOA that will provide the foundation for future enhancement to the VT HBE and other SOV applications. The most important component of the services architecture is identifying the processes that will participate, defining the services required, documenting the services using industry standard formats, implementing the services, and enabling services that provide the application integration and interoperability the SOV requires. The Services provided by the Application and Middleware Layer will allow the SOV to leverage these services and the ESB framework across the enterprise to reduce cost and implementation timelines.

The middle layers of the System Design also provide the functionality needed to manage both the Federal and State Business Rules in a fashion that is sustainable and scalable to meet the future needs of the SOV. One reason the Business Rules Engine functionality is critical to the operations of an HBE is the complexity of the rules and rule structure and their associated dependencies. The Affordable Care Act (ACA) changed the way Medicaid eligibility is determined, which impacts several key business areas:

- The logic that determines the Assistance Group (AG) has changed to create groupings of individuals based on a tax filing unit. This means that the group of individuals the system is going to evaluate is based on the primary individual and the individuals they expect to declare as dependents on their year's tax filing, rather than on the individuals living in the same household.
- Four new categories of Medicaid have been added (plus an additional category at states' option) and intended to consolidate the overall number of Medicaid categories over a one year timeframe.
- Also, to conform to the "Seven Conditions and Standards" (see "*Definitions*" section) of the Enhanced Funding Requirements, the new eligibility rules for the new Medicaid categories, the determination of the new AGs, and eligibility for the new insurance premium and cost sharing subsidies are brought into a technology neutral standard, outside of the transactional system.

The VT HBE will leverage an SOA-based product that includes a business rules engine. After evaluating the Commercial-off-the-Shelf (COTS) rules engines in the marketplace, the Exeter OneGate solution was deemed the best fit to present the information and apply the rules using the Oracle Business Policy server. The new eligibility rules have been developed in the COTS rules engine, which produces rules in both human and machine-readable formats. From the VT HBE enterprise perspective, any system that needs to make an eligibility determination can call a standard eligibility service exposed by OneGate, which in turn calls the rules engine and returns a standard result.

Note: This initial VT HBE solution is limited in scope as to how much of the revised Medicaid rules are implemented. Vermont will be initiating a separate project to implement their "Integrated Eligibility" that will fully implement all of the applicable Medicaid rules and programs.

4.2.3 Logical Architecture: Data Layer

The Data Layer of the System Design will provide several secure databases designed to capture the required VT HBE data elements and its operations. The primary repository for the VT HBE solution will be comprised of two data sources: the first is an Oracle database that will be used to track and manage in progress enrollment applications and the second is the Siebel database for the accepted applications and ongoing changes. Additional data repositories for specific functions such as security, document management, and premium processing.

The VT HBE will also seamlessly integrate with a third-party vendor, Benaisance. The Benaisance system will collect payments, process premiums, distribute funds to carriers and provide the Vermont financial teams with the necessary audit-level details on transactions.

Throughout the execution of the HBE solution the system will establish unique identifiers for individuals, organizations, and other entities, these identifiers will be tracked and managed using the Oracle Master Data Management (MDM) solution which will provide a foundation to meet the Medicaid Information Technology Architecture (MITA) vision of developing seamless and integrated systems that effectively share Medicaid information. The initial scope of the MDM implementation will be highly constrained and limited to the management of the identifiers, due to the very aggressive delivery timeline.

4.2.4 Master Data Management

Goal

Master Data Management's (MDM) short term goal is to facilitate the implementation of Health Benefits Exchange (HBE) and Medicaid (MAGI) by tracking individuals and businesses across the variety of applications containing master customer data. The term master data applies to client /customer data, businesses and carriers.

MDM's mid-to long-term goals are:

- To establish master customer data and the programs that an individual or a business has in Vermont
- To establish master customer data for people and carriers
- To provide common enterprise services to applications so that individuals and business can be identified prior to starting a process or registering for a program.
- To provide data synchronization between HBE and ACCES (the current mainframe application housing the existing programs that will be transitioned, over the next several years , to the new HBE platform)
- Identify duplicate individuals and businesses to ensure that health benefits are attributed correctly

Assumptions

The following assumptions have been made, regarding the Master Data Management and Data Quality:

- The vision of MDM is supported by Vermont Health and is committed to implement the long term solution
- A data governance group will be established with ability to correctly master data in MDM or at source
- Data quality will be implemented to ensure that data is improved, cleansed and standardized across the various applications

Functionality / Capability

MDM has 6 major functions associated with it:

- 1) Load of MDM Data
- 2) Matching of Data for Duplicate Detection
- 3) Generate the GOLDEN RECORD – unique master data for an individual and business
- 4) Receive updates to MDM's master data in real-time, near real-time and batch and survive the appropriate data based on specified criteria
- 5) Publish master data to one or more target applications data in real-time, near real-time and batch
- 6) Maintain history of MDM changes

Load of MDM Data

The MDM solution will be created from an initial load from ACCESS (limited to MAGI Medicaid). The Individuals / Businesses and associated master data from ACCESS will go through the following steps:

- 1) Extract appropriate individuals and businesses
- 2) Perform data quality profiling and analysis using Enterprise Data Quality tools (EDQ)
- 3) Standardize the data using business rules established from EDQ
- 4) Determine data matching and survivorships rules for MDM
- 5) Configure MDM rules (matching, thresholds, nicknames, etc.)

- 6) Run several simulation to validate the quality of the matching and number of tasks generated
- 7) Optimize MDM configuration rules
- 8) Run load
- 9) Data stewards to commence working on generated tasks and data governance activities
- 10) Monitor quality of data

The above steps are for illustration purposes, a more detailed activity list will be produced as part of the project plan.

The step will be similar when introducing an additional source into MDM. The Vermont Health Benefits Exchange (VT HBE) data will be captured through ONEGATE / Siebel will be integrated in this manner. Additionally, the MDM will be integrated with the SOA to support additional integration needs, including Benassiance (premium processing) and Carriers to ensure that those integrations occur using the correct identifier for an individual (person) or company (employer) that is known to Benassiance and Carriers.

Matching of Data for Duplicate Detection

MDM can match key data to verify if duplicates exist and perform a merge based on specified rules. Data stewards can manually override an automatic merge through administration functions. A history of merge / unmerge is kept by MDM. The matching services can be used in real-time or batch. These web services can be exposed to interested applications

Generate the GOLDEN RECORD

MDM maintains the “Golden Record” – master data based on matching of similar source records from one or more applications. Survivorships rules are used to determine with data from which source is considered master data are the best version of the truth. This master data can be published to one or more target applications for the purpose of synchronization. MDM is regarded as the MASTER for Customer data and therefore has the role of informing interested applications when a change occurs.

Exhibit 10: Golden Record

People Identifier Tracking	Organization Identifier Tracking
Person ID	Carrier (Issuer) ID
Subscriber (household) ID	Employer ID
Individual On-line ID	Benassiance Employer ID
Benassiance Subscriber ID	Carrier Employer ID
Carrier Subscriber / Member IDs	
ACCESS ID	

Receive updates to MDM's master data and Publish Master Data

MDM is tied into source applications through business processes or web services. Triggers or events in source applications (ACCESS, HBE, etc.) will cause MDM to be invoked. For example if an addition of a new born is added to a household plan, MDM is notified and the relationship is established. MDM in turn will generate an event and that information can be sent to ACCESS for processing. MDM can also be used to determine if a person exists with the state of Vermont.

Maintain history of MDM changes

MDM maintains a history of incoming source data and also any data stewards' activity such as merge / unmerge is also tracked for audit and traceability purpose.

A series of events and triggers will kick-off a process or web services or an update to a data store which in turn can feed MDM.

Following is a list of events/ triggers. This list is still being finalized, but, gives some insight into how MDM is positioned in respect to operational or transactional applications:

- Change in profile information – name, address, etc.
- Change in eligibility
- New registration
- Change household
- Change in health coverage
- Change of Circumstance

5 Design Considerations

5.1 Design Goals and Guidelines

Systems developed or enhanced to support functions of the Vermont Health Benefit Exchange will adhere to the following mutually understood architectural principles when possible.

In the table below, the left column represents the Design Principle as understood by the VT HBE team, and the right column outlines the concept put forth in the State of Vermont AHS GSD.

The General System Design information is cited from the State of Vermont – Agency of Human Services. “General System Design (GSD Report) – Final.” *State of Vermont Health Services Enterprise Requirements Development Team*, PowerPoint, dated 15 October, 2012.

(http://bgs.vermont.gov/sites/bgs/files/pdfs/purchasing/VT%20General%20System%20Design%20Report_1.0.pdf)

Exhibit 11: VT HBE Design Principle

VT HBE Design Principle	Corresponding Vermont Agency of Human Services General System Design (GSD) Concept
<ul style="list-style-type: none"> ▪ Employ Web Services Architecture/Service-Oriented Architecture methodologies for system design and development to help ensure standards-based interfaces to link partners and information at both federal and state levels. ▪ Use Service-Oriented Architecture (SOA) principles for developing the architecture. 	<ul style="list-style-type: none"> ▪ SOA architecture is a set of guidelines, principles and patterns (topological and communications-related) for defining a solution based on loosely coupled software services. Use of SOA delivers two major categories of value: Sharing (leverage and reuse) and Agility (which gives the capability to change more rapidly.) ▪ The two fundamental principles for SOA are Interface Abstraction and Modularization.
<ul style="list-style-type: none"> ▪ Employ common authoritative data sources and data exchange services, such as federal and state agencies or other commercial entities. 	<ul style="list-style-type: none"> ▪ The GSD specifically mentions Master Data Management including a Master Person Index, Identity Management, Master Provider Index to ensure a single version of the “truth” across Vermont’s HHS programs. In addition, the component of Enterprise Information Exchange is a covered design recommendation. (▪ The GSD also mentions the ability to Data Share. The interfaces to the Federal Hub and Carriers are an example of this design concept.
<ul style="list-style-type: none"> ▪ Employ open architecture standards (non-proprietary) for ease of information exchanges. 	<ul style="list-style-type: none"> ▪ In the GSD, this concept is outlined as “Enable Data Sharing via Standards-based Approach,” by which HHS Agencies will provide and benefit from consistent and accessible data sharing, both internally and externally.
<ul style="list-style-type: none"> ▪ Conform to HIPAA’s rules and regulations and respect all best practices concerning PHI. 	<ul style="list-style-type: none"> ▪ The GSD section that covers this concept is Privacy and Security Compliance, which outlines the need to ensure privacy and security of participant information in accordance with legislative mandates (e.g. HIPAA.)
<ul style="list-style-type: none"> ▪ Use NIEM, NIST, HL7 and other standards for information modeling and exchange wherever possible. 	<ul style="list-style-type: none"> ▪ The State of Vermont outlines this concept under the “Technology Architecture” section, which defines the required technology infrastructure and standards.
<ul style="list-style-type: none"> ▪ Use standards-based business rules and a technology-neutral business rules repository. ▪ Enable the business rules to be accessible and adaptable by other states. ▪ Use a standard technology-neutral Business Rule Management System (BRMS) for managing the business rules. 	<ul style="list-style-type: none"> ▪ In each of the System Flow diagrams in the GSD PowerPoint, there is a section on the Rules Engine (BRMS,) in which the design will account for flexible Rules that will change with legislation and policy.
<ul style="list-style-type: none"> ▪ Build in Performance Measurement and Reporting to collect system performance measures on a regular basis to help ensure quality, integrity, accuracy, and usefulness of functionality and information. 	<ul style="list-style-type: none"> ▪ This would fall under the “Shared Analytics” section of the GSD.

VT HBE Design Principle	Corresponding Vermont Agency of Human Services General System Design (GSD) Concept
<ul style="list-style-type: none"> ▪ Provide reporting capabilities that will allow the State of Vermont to analyze key data points. ▪ Provide the capability to easily add measures to the collection process. ▪ Provide reporting of measures in both real-time and as reports (event and time-driven). 	<ul style="list-style-type: none"> ▪ These standards would fall under the “Shared Analytics” section of the GSD, and include Dashboards and Exception reporting.
<ul style="list-style-type: none"> ▪ Help ensure systems are highly available and respond in a timely manner to customer requests. ▪ Offer configurable system performance parameters, including: ▪ Use of performance measurement to adjust system parameters (that is, priorities) ▪ Redundant capabilities (for example, portal, phone lines, hardware) ▪ Load balancing 	<ul style="list-style-type: none"> ▪ These system performance measures and capabilities are covered in the flexible SOA structure and are inherent in the guidelines for building a system with the following SOA criteria: the System should be Modular, Distributed, Discoverable, Swappable and Shareable. The Cloud-based structure of the system will also relate to these measurements and capabilities.

5.2 Architectural Strategies

1. System is based on Service Oriented Architecture (SOA) principles and should address reuse, granularity, modularity, and interoperability.
2. Leverage virtualization, cloud computing, and managed hosting.
3. The solution should maximize the use of open standards-based components within the solution.
4. Interfaces will be developed using best practice standards.
5. The services are loosely coupled units of functionality. The functionality is agnostic of the business process and capable of being leveraged and reused by multiple processes.
6. Follow Federal and Industry standards for accessibility, messaging, and security.
7. Isolate business rules from programming logic. The categories of the rules identified are:
 - ▶ Eligibility rules for different programs (Medicaid, CHIP, MAGI etc.)
 - ▶ Plan premium calculation rules
 - ▶ Small Business specific employer/employee verifications rules
 - ▶ Financial rules, determine contribution amount, process Advance Payment Tax Credit (APTC) data received from IRS etc.
8. Will support the capacity to exchange data electronically so that multiple programs can be managed through a single application.
9. Design standardized interfaces to support consistent, efficient, and transparent exchange of data elements between federal programs and states.
10. Employ a modular, flexible approach to systems development, including open interfaces, and isolated components that can be more easily upgraded, maintained and shared over time.
11. Design will be flexible to provide real-time feedback on eligibility, plan options, and cost.

12. Focus on the consumer to simplify and reduce the time necessary for an individual to enroll in a health plan.
13. Enable reuse of the proposed Health Exchange functional solution, integration, and technical components where possible.
14. Enable a secure delivery platform to build trust between the various organizational entities.
15. Simplify ongoing operational support needs.

5.3 Architectural Drivers

The architecture is driven by business and technological objectives:

- General Business Drivers
 - ▶ Access and share business information faster and more effectively
 - ▶ Information is accessible as needed for each business function
 - ▶ Ability to act on changing business and legislative environment
 - ▶ Accommodate business growth and expansion
 - ▶ Accommodate existing information technology assets
 - ▶ Expose business services to interested parties
- General Technology Drivers
 - ▶ Provide a reliable, scalable, and stable solution
 - ▶ Simplify on-going maintenance and support functions
 - ▶ Simplify integration with other / existing system during the initial release and future releases
 - ▶ Implement reusable technologies in support of current solution needs and potential future enterprise initiatives
 - ▶ Leverage new network computing architectures, particularly those based on web services standards
 - ▶ Use COTS package applications where applicable
 - ▶ Displace obsolete and outdated technologies

5.4 Architectural Goals

The following are the primary goals for the software architecture:

- **Quality:** Support implementation of the business processes and services correctly and consistently
- **Intuitive:** Enable designs and APIs that are consistent, coherent, and clear
- **Ease of maintenance:** Enable easy implementation of future enhancements and changes
- **Security and Confidentiality:** Align with all applicable security policies at the Department and State levels including Personally Identifiable Information (PII) related confidentiality requirements
- **Reliability:** Reduce application downtime, application outages, and errors that directly affect users
- **Modularity:** Support de-coupling of components through implementation of function-based units accessible through defined application program interfaces
- **Extensibility:** Support future expansion by using configurable and encapsulated components that can be replaced with little impact
- **Reusability:** Support component and service-based reuse for future projects
- **Flexibility:** Support flexible and distributed deployment flexibility

The following table lists the main architectural goal characteristics and their descriptions:

Exhibit 12: Main Architectural Goal Characteristics

Acronym	Definition
Availability	Characteristic of a system providing for maximization of the time the system is available to its users.
Extensibility	Characteristic of a system supporting reduction of effort while introducing significant modifications to the system.
Interoperability	Characteristic of a system allowing for interaction with external systems irrespective of their technological platform of implementation.
Maintainability	Characteristic of a system reducing the effort needed to maintain the system in the typical usage patterns and expected life cycle.
Manageability	Characteristic of a system supporting monitoring, system configuration, and remote detection of performance-related events and failures.
Performance	Characteristic of a system allowing for production of intended results under specified load and within specified response times.
Portability	Characteristic of a system supporting migration from one underlying technology platform to another with a minimum of required changes to the system itself.
Reliability	Characteristic of a system determining its functioning with acceptable and prescribed levels of failure.
Reusability	Characteristic of a system supporting use of specific artifacts in systems or applications other than the system of origin.
Scalability	Characteristic of a system allowing for increasing the load on the system (in terms of for example, concurrent users, programs) without affecting the basic elements of the system.
Securability	Characteristic of a system providing for authentication of users and authorization of users in accessing specific resources of the system.
Serviceability	Characteristic of a system supporting repairs and updates with a minimal impact on system availability.
Usability	Characteristic of a system describing how easy it is for users to perform functions supported by the system.

5.5 Development Methods and Contingencies

The following section describes the development methods and contingencies.

5.5.1 Introduction

There is a critical need for a common development framework that can be used by IT practitioners to address the creation and management of systems in a consistent and effective manner. The SOV has requested, based on CMS requirements, the VT HBE project leverage the use of a Waterfall methodology to manage the overall development lifecycle. The VT HBE project may overlap certain waterfall activities or execute multiple development streams to help ensure the highest quality delivery by the federally mandated implementation date. The following restrictions may apply:

- The Requirements must be approved prior to the beginning of construction (Prototyping is allowed for the clarification of the requirements and design and the prototypes may be evolved into components of the product)
- The design and construction must be complete prior to the beginning of formal testing

- Formal testing must be complete prior to production implementation

This Waterfall approach allows for certain aspects of the development lifecycle to be initiated concurrently and allows for some rapid development of specific solution components. This approach is limited only by physical reality of software development (for example, it is not possible to install software that has not yet been constructed), the availability of team members to perform the tasks, and the restrictions mentioned above. Some benefits of this approach are:

- The client business environment is changing rapidly and some requirements are not fully known in a timely fashion and this approach allows time for requirements to be finalized before a change is required.
- The user interface needs experimentation. To optimize the effectiveness of the user interface, a new type of application may need to experiment with several approaches to optimize the effectiveness of the user interface.

In order to enable a true loose coupling among the solution components supported by a Service Oriented Architecture (SOA), we need application and integration frameworks. The benefits of SOA are:

- The generation of software artifacts inherently compliant with the architecture and system design.
- Increases developer productivity and consistency, maintainability, and quality of software artifacts.
- Supports traceability of generated software artifacts to models and supports impact analysis to determine effects of changes to system models.
- Supports true abstraction of the architecture from the underlying implementation thereby enabling changes and/or upgrades to the implementation in the future without losing knowledge built into the model.
- Decouple:
 - ▶ Consumers from Providers
 - ▶ Interfaces from implementations
 - ▶ Business rules from application logic
- Provide system “discoverability” through metadata
- Define and utilize canonical message and data structures
- Practice component-based development
- Use those components to build services through orchestration
- Provide SOA transparency through BAM

These benefits align closely with the SOV vision for the VT HBE solution to provide an enterprise foundation for future applications to build off of in the future. For example, some of the SOV goals for the VT HBE solution are:

- The Implementation of a best of breed market solution that can be expanded to support enterprise needs that are loosely coupled.
- Integration-based solution that enables data access between technical components and external functions driven by a Services Oriented Architecture (SOA) approach and tools.
- Enable a highly reliable solution that provides confidence in the operations teams and the citizens of Vermont.
- Provide a secure solution that ensures access, operations, and delivery of data supports a complex combination of compliance needs HIPAA, FTI, PCI, and NIST that are necessary for a state government solution to operate a healthcare solution.
- Drive leverage and reuse. Enable the ability to share appropriate business functions, materials, and components within the VT HBE solution and to other additional solutions/enterprise.

- Operational independence. Ensure that each of the operational components can operate separate from the other components within the VT HBE solution to simplify the support and maintenance functions.

Contingencies are broken into two fundamental sections; development contingency and operational contingency.

5.5.2 Development Contingency

The VT HBE solution is based fundamentally on the well-known tool set from Oracle applications and architecture with a set of add-on extensions from a company (Exeter), the company that developed OneGate.

The initial development contingency has already been enacted, as a preventative measure, in the form of professional consulting services from Oracle and Exeter. In addition, the development team is engaged with other VT HBE state-based solutions that are using similar tools to further reduce the number of unknowns. The project plan and team have brought the testing team on board early in the development process to help ensure that all test conditions are identified and appropriate desired business and technical test results are achieved. The testing team will be engaged with the development team throughout the development activities. The State of Vermont Department of Information and Innovation (DII) have provided significant staffing, that is above and beyond the core development staffing, to support the discovery and definition of detailed technical aspects that would negatively impact the delivery schedule. To further reduce the development issues a series of delivery releases is planned; A) stand up initial baseline technology, B) perform initial prototyping on functionality, C) verify integration between components are operational, D) execute an extensive set of testing.

5.5.3 Operational Contingency

The overall design of the VT HBE solution is based on the approach that the solution can operate within and take advantage of a High Availability infrastructure that will support and resolve the majority of local (within primary site) operational failures with minimal impact on the end user. If a significant issue arises that would require the initiation of the secondary “warm site” in Philadelphia, the secondary site will be configured as a “mirror” to the primary site with access to the common information and recent processed information, up to 30 minutes. This warm site will be configured to be operational within a four (4) hour time period. In the unique scenario that both Primary and Secondary sites are not available for operations, the Disaster Recovery plan will describe how operational teams will respond.

5.6 State of Vermont SOA Principles Summary

Principles form the core values of architectural decision making for an organization. The SOV SOA principles are derived from The Open Group Architecture Framework (TOGAF) principle catalog as well as the Oracle Enterprise Architecture Framework (OEAF).

Principles are general rules and guidelines, intended to be enduring and seldom amended that inform and support the way in which an organization sets about fulfilling its mission.

In their turn, principles may be just one element in a structured set of ideas that collectively define and guide the organization, from values through to actions and results.

Exhibit 13: SOA Principles Acronyms

Acronym	Definition
ACA	Affordability Care Act
BRE	Business Rules Engine
CI	Configuration Item

Acronym	Definition
CM	Configuration Management
CMS	Centers for Medicare and Medicaid Services
COTS	Commercial Off the Shelf Software

Exhibit 14: Descriptive Names of the SOA Principle

Name	SOA Principle
Statement	The Statement should succinctly and unambiguously communicate the fundamental rule. For the most part, the principles statements for managing information are similar from one organization to the next. It is vital that the principles statement be unambiguous.
Rationale	The Rationale should highlight the business benefits of adhering to the principle, using business terminology. Point to the similarity of information and technology principles to the principles governing business operations. Also describe the relationship to other principles, and the intentions regarding a balanced interpretation. Describe situations where one principle would be given precedence or carry more weight than another for making a decision.

The following core SOA Principles will be applied for the VT HBE project to refer to as a guide during the design review, development, and implementation of the overall solution.

Exhibit 15: Core SOA Principles

Name	Statement	Rationale
Service re-use	Existing services should always be considered first when creating new SOA solutions.	Re-use before buy before build to decease cost and complexity.
Standard Service Contract	Services share standardized contracts. Services within the same inventory are in compliance with the same contract standards.	To enable services with the meaningful level of the natural interoperability within the boundary of service inventory which reduces the need for data transformation. To allow the purpose and capabilities of services to be more easily and intuitively understood.
Service Loose Coupling	Services are loosely coupled. Service contracts impose low consumer coupling requirements and are themselves decoupled from their surrounding environment.	Re-use before buy before build to decease cost and complexity.
Service Abstraction	Service contracts should only contain essential information and information about service is limited to what is published in service contracts.	To enable services with the meaningful level of the natural interoperability within the boundary of service inventory which reduces the need for data transformation. To allow the purpose and capabilities of services to be more easily and intuitively understood.
Service Autonomy	Services exercise a high level of contract over their underlying runtime.	This promotes an environment in which services and their consumers can be adaptively evolved over time with minimal impact on each other.

Name	Statement	Rationale
Service Discoverability	Services are supplemented with communicative meta-data by which they can be effectively discovered and interpreted.	To keep the quantity and details of contract content concise and balanced and prevent unnecessary access to additional service details.
Service Description	Descriptions shall be adequate to support consumer decision to use the service.	To increase the service runtime reliability, performance, and predictability. To increase the amount of control service has over its runtime environment.
Service Harvesting	Solutions should be reviewed for harvesting re-usable services.	Services should be positioned as highly discoverable resources within the enterprise.
Service monitoring	Service contracts adherence should be monitored. Metrics should be gathered and available.	Help ensure consumers have adequate information to decide whether the service is appropriate for their objectives. This may include: Service Meta-data - Policy - Contracts - Funding model (current and projected) Helps support consumers re-using existing services
Service policy enforcement	Service design and run-time policies should be enforced.	Existing solutions are the best source for re-usable services with the least development and maintenance costs. New solutions should consider harvesting services during initial development and on an ongoing basis.
Service security	Services contracts and descriptions should be reviewed for conformance to organization security requirements with identified security best practices and support of objectives.	To help ensure correct service delivery. To detect service contract violations. To feed service and SOA solution governance. To support consumers choosing a service with appropriate metrics.
Comply with EA	The SOA services and solutions should comply with the enterprise architecture (if one exists).	To ensure high-quality services. To help ensure conditions are met that have been expressed to achieve stated goals.
SOA governance must promote the alignment of business and IT	The SOA governance program should support the business and IT drivers. Business and IT stakeholders must participate in governing and enforcing the organization's SOA program.	To help ensure correct security levels and risk levels.
Conform to organization's governance	SOA governance activities shall conform to Business, IT, & EA governance principles and standards.	To help ensure that the SOA solution and service fulfills the long-term goals of the organization.
SOA Reference Architecture is required	An SOA Reference Architecture provides a set of architectural patterns, standards, and best practices for use in developing SOA solutions.	SOA is intended to drive flexibility and agility for the business and IT. Failing to govern to foster that alignment will reduce the benefits of service-oriented approach.

Name	Statement	Rationale
Provider & consumer contracts	Contracts should exist between service providers and consumers. Contracts may be dictated by one Party.	The organization governance procedures are part of the strategy of the organization and should be a part of SOA governance as well.
Service metadata	To enable decisions and descriptions relating to services and their contracts to be stored in a well-known location, including relationships among services and their associated artifacts.	Use of the approved architectural artifacts, from the SOA RA, will reduce project risk and lower costs, by reducing the number and complexity of design activities in the project
Identified governance stakeholders	Stakeholders shall be identified and accept responsibility for the governance process(es).	To help ensure the correct delivery of service.
Tailor SOA governance processes	SOA governance processes should be tailored based on objectives, project scope, and risk.	Understanding of the purpose of the service. Business continuity impact analysis. Root cause analysis.
Automate SOA governance processes	It should be possible to automate the SOA governance processes.	To help ensure proper execution of governance. To communicate SOA governance value. To communicate appropriate SOA governance processes and procedures.

5.7 Development Tools

The following section provides a description of the tools used to enable the VT HBE implementation throughout the Software Development Lifecycle (SDLC). The following section outlines the description of how each of the products will be integrated and leveraged to establish end-to-end configuration control. The selected development tools for the implementation of the Vermont Integration Hub and configuration are listed below.

Exhibit 16: Development Tools

#	Tool	Description
1	ALMComplete	This application lifecycle management tool furthers the collaborative process helping teams communicate more effectively. It combines the capabilities of two integrated modules, QAComplete and DevComplete, plus support ticket management and contact management capabilities. Document sharing, team calendars, interactive dashboards, burn-down charts, knowledge bases and threaded discussions.
2	QTP	HP QuickTest Professional software provides functional and regression test automation for software applications and environments. Part of the HP Quality Center tool suite, HP QuickTest Professional can be used for enterprise quality assurance.
3	LoadRunner	HP LoadRunner is the industry standard for application performance testing. The load testing tool helps you prevent issues by detecting bottlenecks and to obtain an accurate picture of end-to-end system performance before going live.
4	Web Inspect	HP WebInspect is an automated and configurable web-application security-testing tool that mimics real-world hacking techniques and attacks, enabling you to thoroughly analyze your complex web applications and services for security vulnerabilities.
5	Ensemble	Internal (CGI) document repository (Issue, Change, Risk, Collaboration, Doc Repository).
6	Toad	Toad provides a simple, consistent way to build, manage, and maintain databases.
7	jProfiler	JProfiler's intuitive UI helps you resolve performance bottlenecks, pin down memory leaks and understand threading issues.

#	Tool	Description
8	CA Erwin	CA Erwin Data Modeler is an industry-leading data modeling solution that provides a simple, visual interface to manage your complex data environment.
9	Justinmind Prototyper	With Prototyper, you can draw highly interactive wireframes in minutes using its extensive gallery of components and interactions.
10	XML Spy	XML Editing Tool
11	Liferay Enterprise Edition	Liferay Portal, the market's leading independent portal product.
12	JAWS	JAWS is used for ADA Compliance verification and Usability Testing.
13	Thunderhead NOW	Simple Correspondence.
14	soapUI Pro	Web services test tool; supports automation of web services inspection, invocation, simulation, mockup, functional, load, and compliance tests.
15	Java PDF417, QR Code Generator	This tool set provides functionality to generate barcode images in 1D and 2D barcodes.
16	Splunk	Splunk is a fully featured, powerful platform for collecting, searching, monitoring and analyzing machine data.
17	AccVerify	AccVerify software is provided by HiSoftware as a content-aware compliance solutions for the Web that detect private or confidential data and report on violations to help ensure compliance with regulatory and other internal policies. This tool will be used to execute the 508 Compliance Check.
18	ATSM	Test Automation and Regression, Case Loading and Support.
19	Data Masker	Test and Development Data creation and manipulation.
20	CGI SWAT	Development tool for Agile development and sprint management.
21	Checkstyle	Development tool for Coding Standards (JAVA).
22	Cobertura	Development tool for Code Coverage (Java).
23	CSSAnalyzer	Development tool for Usability Testing Tools.
24	Eclipse	Development tool for coding (Java IDE).
25	FindBugs	Development tool for applying Coding Standards (JAVA).
26	Google Analytics	Google Analytics (GA) is a service offered by Google that generates detailed statistics about a website 's traffic and traffic sources.
27	Javadoc	Development tool for Documentation (Java).
28	JavaNCSS	Development tool for Code Metrics (Java).
29	Jenkins/Hudson	Development tool for Continuous Integration (Server).
30	Junit	JUnit is a simple, open source framework to write repeatable tests. JUnit executes regression tests as part of the release process which greatly helps continuous integration process.
31	Loqate Verify	Address Verification for the USA

#	Tool	Description
32	Maven	Development tool to help perform code builds (Build Tool).
33	Quartz	Quartz is a full-featured, open source job scheduling service that can be integrated with, or used alongside virtually any Java application - from the smallest stand-alone application to the largest e-commerce system. Quartz can be used to create simple or complex schedules for executing tens, hundreds, or even tens-of-thousands of jobs; jobs whose tasks are defined as standard Java components that may execute virtually anything you may program them to do.
34	Selenium	Web application record/playback tool used for regression testing of the user interface.
35	SLF4J	The Simple Logging Facade for Java or (SLF4J) serves as a simple facade or abstraction for various logging frameworks
36	SONAR	Development Tool for Coding Standards (JAVA) (Code Quality Metrics).
37	Apache ANT	Apache ANT is open source java-based tool which allows automating build management activities. Maven may be leveraged as an alternative to ANT.
38	TortoiseSVN	TortoiseSVN is open-source revision control software for Windows. TortoiseSVN provides an easy user interface for accessing Subversion.
39	SpringSource	Alternative Java IDE. SpringSource is a popular application development framework for enterprise Java. Developers use Spring to create high performing, easily testable, reusable code without any lock-in.
40	Eclipse IDE	Oracle provides an Eclipse distribution package, Oracle Enterprise Pack for Eclipse (OEPE) that includes a variety of plug-ins that are useful and necessary to develop some of the Oracle Middleware components. The current version, suitable to development of the SOA 11.1.1.6 Suite, is OEPE 11.1.1.8.0, which is based on Eclipse 3.7.1 (Indigo). OEPE is essential for Oracle Service Bus (OSB) development and very useful for database, Web Tier, and WebLogic (WLST) development. Because OEPE is a contemporary version of Eclipse, it seems a good candidate for standardization as the primary Java-based stack development IDE. Additional plug-ins can be added to OEPE for extended development capability.
41	Oracle JDeveloper IDE	JDeveloper is a Java IDE, with basic capabilities similar to Eclipse. All developers who will be creating orchestrated services and business processes will use the JDeveloper IDE. Most other development will be done on Eclipse or other appropriate IDE.
42	Oracle BPM Composer	BPM Composer is a web-based development and documentation tool for Oracle BPM processes and rules. The current version of Composer is not a suitable replacement for the JDeveloper BPM Studio. If Composer is used into HBE, it will likely only be used as an interface to specific administrators or technical analysts, and only to make limited changes such as modifying a business rule.
43	Oracle Data Modeler	Oracle Data Modeler (ODM) is a no-cost development tool used primarily for logical and physical database design. Some of the uses of ODM for HBE development are to design new and customized OLTP tables, reverse-engineer database schemas for inspection and documentation, create and publish models as documentation artifacts, create and manage database deployment scripts, etc.
44	Subversion	Subversion is used for management and control of software development assets. Subversion is an open source product. It provides sophisticated version control, parallel development, and the 47 capabilities needed to create, update, build, deliver, reuse, and maintain business-critical assets.

The following are the details and list of the current file types for each configuration category:

Exhibit 17: Controlled Software Category File Types

#	Controlled Software Category - Application	File Type
1.	Enterprise Java Beans (EJB)	.java
2.	EJB Deployment Descriptors	.xml
3.	Plain Old Java Objects (POJO)	.java
4.	JUnit Test Files	.java
5.	Java Servlets	.java
6.	Application Configuration Files	.xml
7.	Property files	.properties
8.	Java Server Pages (JSP)	.jsp
9.	HTML Files	.html
10.	Cascading Style Sheets (CSS)	.css
11.	JavaScript	.js
12.	Images	.gif,.jpeg
13.	Application Deployment Descriptors	.xml
14.	Third-Party JAR files	.jar
15.	Java Enterprise Archive	.ear
16.	Web Archive	.war
17.	XMS Schema Definition	.xsd
#	Controlled Software Category - Script	File Type
18.	Apache ANT Build Files	.xml
19.	Property Files	.properties
20.	Shell Scripts	.sh
21.	Third-party JAR Files	.jar

6 General Testing Approaches

6.1 Integrating and Testing with the Federal Hub

- Complexity in the implementation of our communication infrastructure requires:
 - ▶ Validate the handshaking ability between physical networks. Confirm, via the use of SoapUI, that the XSD's the Fed's provide us are viable and that security is in place and dependably functional
 - ▶ Confirm, via the use of SoapUI, that message content, utilizing CMS test data, provides expected results
 - ▶ Validate the use of the middleware layer, which will be carrying out the business logic and orchestration needed to map responses and requests from external sources, into the internal components of the Vermont Health Benefit Exchange.
- Once we achieve the previous levels of validation, we would continue to exercise the SoapUI utility to inform our ongoing development efforts of SOA composites, again following a gradual progression:

- ▶ Achieve the same level of communication reliability that the SoapUI utility is providing
- ▶ Implement Oracle SOA Suite Mediators to do the message validation and mapping

6.2 Integrating and Testing with Carriers

The preferred method of transmission is web services. Web services provide improved reliability, tracking, problem resolution, and monitoring. The content in File Transfers is often not programmatically discernible. For example, errors have to be identified and responded to manually.

Highlights of the Carrier integration model include:

As carrier specific transactions are identified (such as the creation of groups, adding employees), the internal processing will occur.

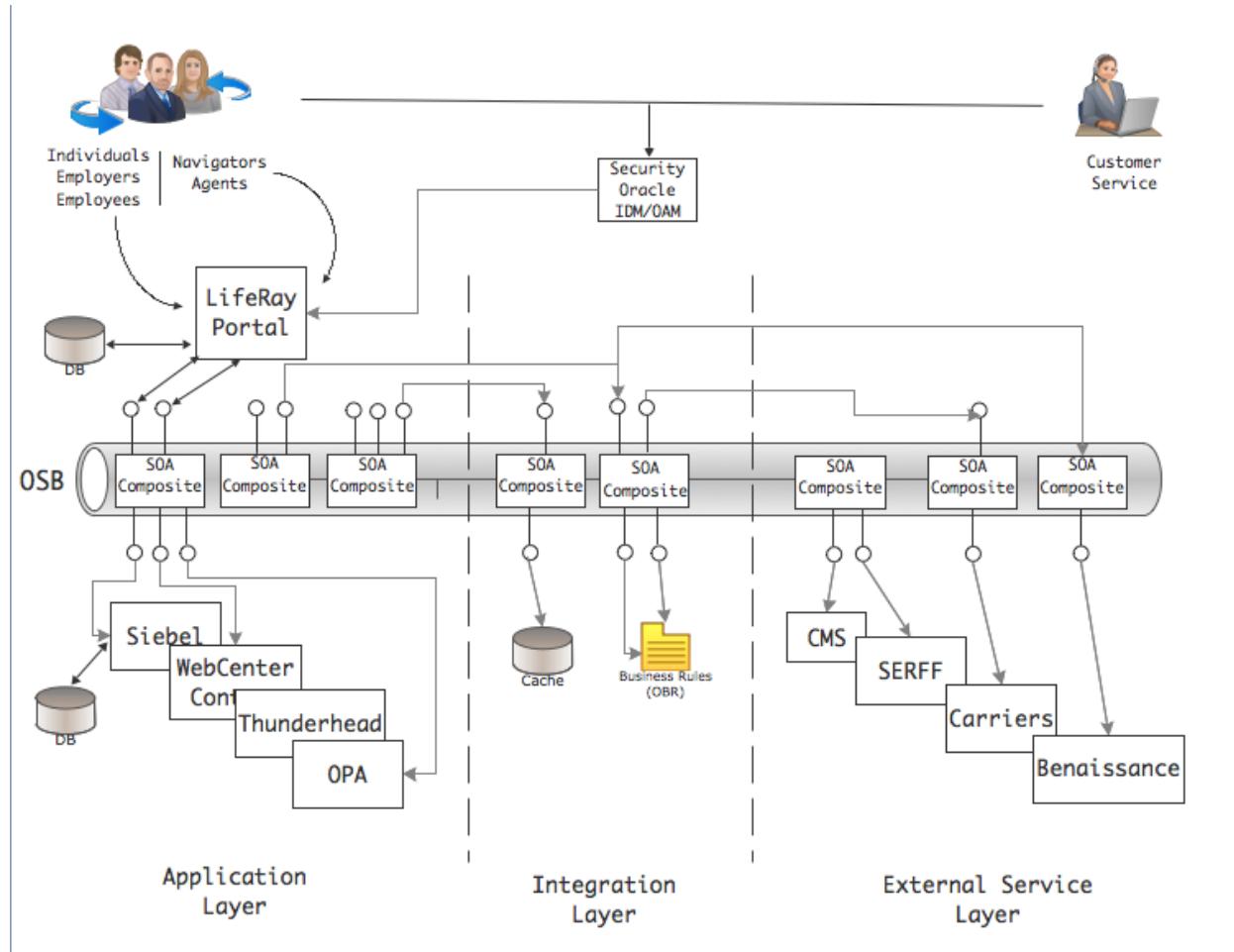
Transactions (for example, 834) will be created as if web services will be used for processing.

- If the Carrier Exchange Agreement identifies batch SFTP as the transport method, then we will queue the transactions, and pass these as files. For this business use case we will need to hold the employee transactions until the employer record creation has been verified.
- These two paths will provide an Enterprise solution that is both flexible and scalable.

7 System Architecture

The following diagram represents the high-level architecture of the VT HBE solution.

Exhibit 18: VT HBE Solution Overview



7.1 Design Patterns

Design patterns are commonly defined as time-tested solutions to recurring design problems. These patterns represent solutions to common problems in software development. Design patterns have two major benefits. First, they provide a way to solve issues related to software development using a proven solution. The solution facilitates the development of highly-cohesive modules with minimal coupling. They isolate the variability that may exist in the system requirements, making the overall system easier to understand and maintain. Second, design patterns make communication between designers more efficient. Software professionals can immediately picture the high-level design in their heads when they refer to the name of the pattern used to solve a particular issue when discussing system design. These patterns have been used successfully by developers in their respective fields, and therefore, the pros and cons of the pattern (as well as implementation issues) are known beforehand. All design patterns are reusable and can be adapted to particular contexts.

There are a number of design patterns which will be used in the design and development of the Vermont Health Benefit Exchange. The most significant design patterns are in the following sections:

7.2 SOA Architectural Patterns

The Canonical Schema Bus SOA architectural pattern is the basis of the system integration design. The Canonical Schema Bus pattern is a composite of several SOA design patterns, primarily:

Enterprise Service Bus (ESB) pattern

The ESB pattern is a composite pattern that provides an additional layer of connectivity and abstraction. ESB is characterized by the application of some essential patterns:

- Asynchronous Queuing
- Event-Driven Messaging
- Intermediate Routing
- Policy Centralization
- Reliable Messaging
- Rules Centralization
- Service Broker

Canonical Schema Pattern

Services that use similar data use common schemas, thus reducing transformation requirements that increase development effort, design complexity, and runtime performance overhead.

Standardized Service Contract Pattern

A fundamental tenant of SOA is to adopt a normalized approach to developing and publishing services. The Vermont Health Benefit Exchange web services conform to the Standardized Service Contract pattern by providing WSDL, XSD, and WS-Policy descriptions for every exposed service.

The Contract Centralization pattern states that services can only be accessed according to the service contract, thereby eliminating “back doors”. Contract Decoupling also applies, which means that the contract is not directly associated to the implementation, therefore the implementation of the service could be changed without affecting the contract itself or the consumers of the service.

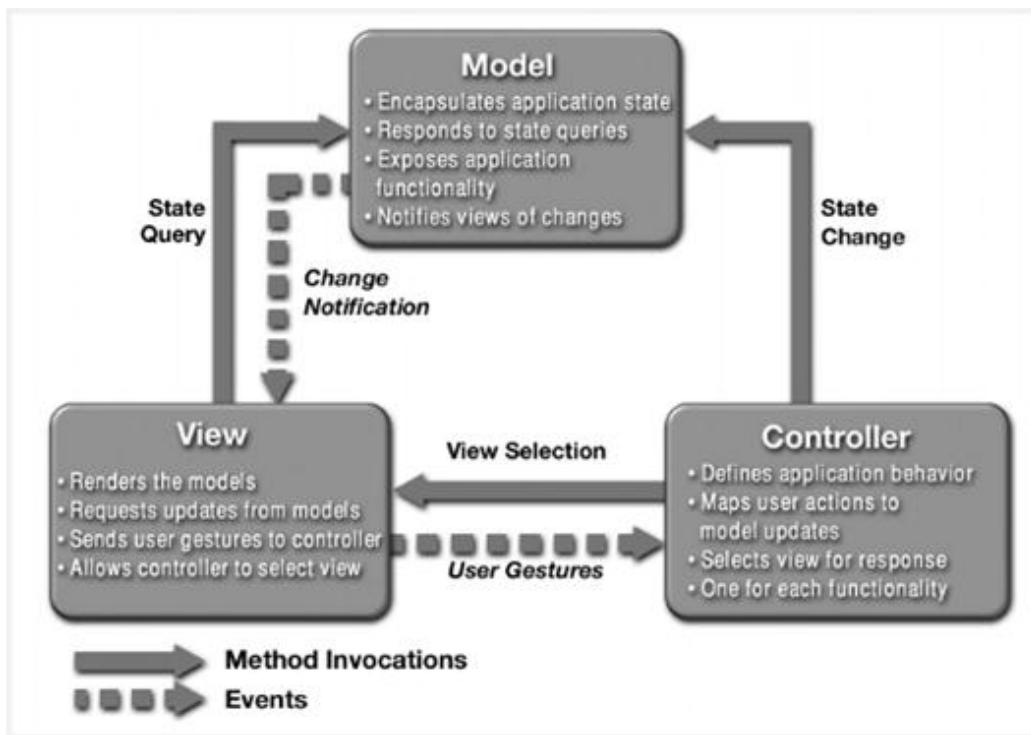
7.3 Model – View – Controller Pattern

As with most web applications, the VT HBE is also built using the MVC design pattern. This pattern helps us in developing solutions that are loosely coupled and thus more flexible.

The VT HBE architecture will implement a Model-View-Controller (MVC) architecture pattern where presentation, business logic, and persistence are decoupled. An MVC separates design concerns (data persistence and behavior, presentation, and control), decreasing code duplication, centralizing control, and making the application highly maintainable and extensible. The user interface simplifies user “actionable events”, supports the majority of the modern browsers and complies with the overarching requirements of accessibility (Section 508), usability, and user support.

The Model-View-Controller (MVC) pattern is the suggested solution for web-based applications. MVC has been used very effectively in GUI-type applications. By applying the MVC design pattern to a J2EE application, you can separate the data access logic from the data presentation logic. You can also build a flexible and easily extensible controller that controls the whole flow of the application. The following figure depicts the MVC architecture.

Exhibit 19: MVC Architecture



The MVC architecture can be mapped to a multi-tiered enterprise application as follows:

All enterprise data and the business logic to process the data can be represented in the MODEL.

The VIEW can access the data through the model and decide on how to present them to the client. The VIEW must ensure that the presentation changes as and when the MODEL changes.

The CONTROLLER can interact with the view and convert the client actions into actions that are understood and performed by the MODEL. The CONTROLLER also decides on the next view to be presented depending on the last client action and results of the corresponding MODEL action(s).

Some of the benefits of MVC architecture include:

- MVC architecture is suitable for a highly-interactive system that requires extensibility, maintainability, and multiple user views.
- MVC decouples presentation, user interaction, and system model.
- Presenting multiple views for multiple data sets is made easy because of the decoupling. This also makes it much easier to enable support for new types of clients (web, pda).
- Using this architecture minimizes code duplication.
- By separating the presentation from model and overall application flow, this architecture enables division of developer responsibilities, and thereby, produces faster development cycles.

7.4 Other Design Patterns

Exhibit 20: Other Design Patterns

Pattern	Description
Front Controller	Uses controller as the initial point of contact for handling a request. The controller manages the handling of the request, including invoking security services such as authentication and authorization, delegating business processing, managing the choice of an appropriate view, handling errors, and managing the selection of content creation strategies.
View Helper	A view contains formatting code, delegating its processing responsibilities to its helper classes, implemented as JavaBeans or custom tags. Helpers also store the view's intermediate data model and serve as business data adapters.
Session Façade	Uses session bean as a facade to encapsulate the complexity of interactions between the business objects participating in a workflow. The Session Facade manages the business objects, and provides a uniform coarse-grained service access layer to clients.
Web Service Broker	Use a Web Service Broker to expose and broker one or more services using XML and web protocols.
Transfer Object	Uses transfer Object to encapsulate the business data. A single method call is used to send and retrieve the Transfer Object. When the client requests the enterprise bean for the business data, the enterprise bean can construct the Transfer Object, populate it with its attribute values, and pass it by value to the client.
Data Access Object (DAO)	Uses Data Access Object (DAO) to abstract and encapsulate all access to the data source. The DAO manages the connection with the data source to obtain and store data.

7.5 Hardware Architecture

The Vermont Health Benefit Exchange IT infrastructure will leverage the CGI Government Cloud. Cloud sites are located in the Phoenix Data Center (PDC) and the Philadelphia Data Center (SDC). Vermont's setup is comprised of five separate operational specific environments. Note that this version of the SDD only covers the first two-bolded items:

- PDC
 - ▶ Development
 - ▶ System Integration Test
 - ▶ Training
 - ▶ Staging (mirror of Production)
 - ▶ Production
- SDC
 - ▶ Disaster Recovery (Warm Site - mirror of Production)

The Hardware Architecture section of this document provides an overview of the VT HBE environments and network connections. There are a total of six VT HBE environments, of which three are considered Non-Production environments that consist of Development, Test, and Training. Each of the Non-Production environments will be fully functioning environments, but do not require any physical servers and the overall environment size is smaller than the Production Environments. The remaining three environments are considered Production equivalent environments that consist of Staging, Production, and Disaster Recovery. The Production environment configuration utilizes Physical servers to help ensure the best possible performance and the Staging environment will be mirror image of the Production environment.

Development Environment (Non Production Configuration)

The Development environment is used to develop and unit test the application for each of the technology areas. This development environment allows collaboration of development that actually takes place on developer workstations.

Test Environment (Non Production Configuration)

The Test environment is used to conduct functional and technical test for the components that have been constructed and unit tested in the development environment. This dedicated environment enables testers to confirm the application meets business functional requirements. Depending on the specific test activity taking place, this environment is set up for the test team to verify and validate the functionality of the application.

Training Environment (Non Production Configuration)

The training environment is a dedicated environment that allows users to perform hands-on exercises during training delivery.

Staging Environment (Production Configuration)

The Staging environment provides an area to the end users to validate the components and verify functional accuracy and completeness of the application. This environment supports not only the end-user functionality, but also the back-end functions such as batch processing, interfaces, and information delivery. This environment acts as a staging platform prior to promoting any changes to the production environment. The architecture of the pre-production environment mirrors the setup of the production environment with less capacity in regard to server count and storage capacity. As a best practice for CM only after a change has been verified in the pre-production environment is it migrated to the live production environment.

Production Environment (Production Configuration)

The production environment serves as the live environment of the application.

Disaster Recovery (Production Configuration)

The Disaster recovery environment serves as a warm failover environment for the Production environment. The architecture of the Disaster Recovery environment mirrors the setup of the production environment with less capacity in regard to server count and storage capacity.

7.6 Network Diagram

The following diagram provides an overview of the VT HBE Wide Area Network.

Exhibit 21: VT HBE Wide Area Network

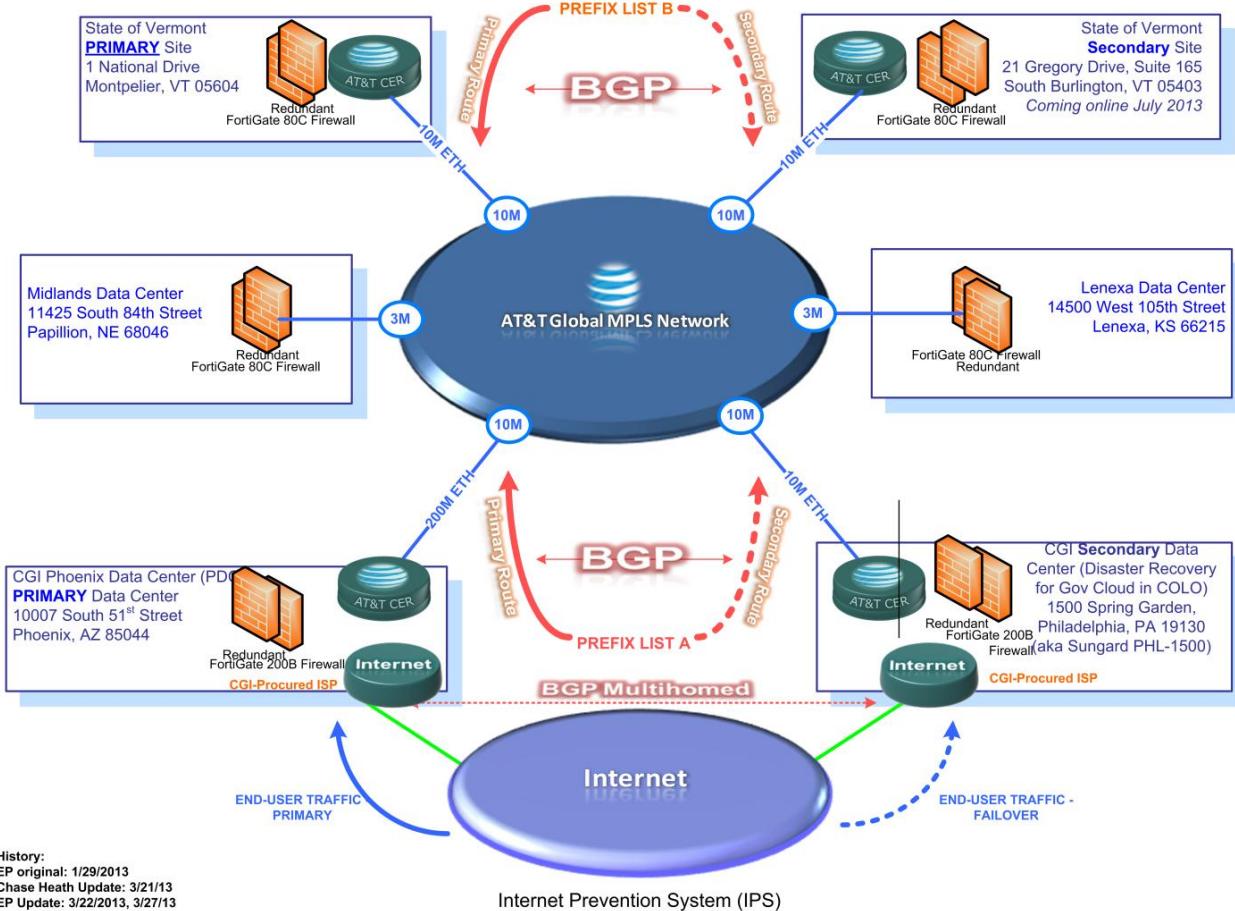


Exhibit 22: Environment Definitions

Environment	Area	Activities	Comments
Development - Integration	Development	<ul style="list-style-type: none"> ▪ Unit Testing of modules ▪ Unit automation 	Purpose: Verify that each functional or technical component performs its actions as required. Each development stream will perform individual coding efforts and unit testing in their own development environment and then integrate their code enhancements/changes into the Integration environment.
	Project Tools	<p>Support project activities:</p> <ul style="list-style-type: none"> ▪ Subversion ▪ Microsoft Visual Studio ▪ Grid Control 	Purpose: Supports project functions including software version control (Subversion), performance monitoring, etc.
	Test	<ul style="list-style-type: none"> ▪ Integration Testing of components from N Iteration ▪ White box ▪ Functional Testing ▪ Black and Gray box ▪ Regression Testing ▪ Batch Processing ▪ Performance Testing (unique virtual instance) ▪ Security Testing (unique virtual instance) 	Purpose: Verify that individual components work together to perform business steps, processes or functions as required. Once development code changes have been unit tested and integrated with the main COTS Integration environment where integration and COTS functional testing will be performed by the development and testing staff, the CGI testing team will create and utilize stubbing techniques to mimic communication from other interfaces not developed. End-to-end testing, performance testing, security, and usability will take place in parallel during the final iterations of System Integration Test.
System Integration Test	System Test	<ul style="list-style-type: none"> ▪ Release Test ▪ Module connectivity test ▪ End-to-End Test ▪ Data Structure Validation ▪ Operational Readiness ▪ Deployment Procedure Testing 	Once the VT HBE has passed through the various test phases, the test environment is used to practice migration strategies and perform final testing activities against actual production data before General Availability to the public. The CGI project team members and VT HBE representation will review release changes, test results, risks, and production migration plans before each actual release to the Vermont public.
	Rules Configuration Test	Policy Change Testing	This environment may be set aside for the VT HBE team to perform rules configuration testing based on policy or other exchange changes.
	Emergency Fix Test	<ul style="list-style-type: none"> ▪ Critical defect testing ▪ Regression testing 	The Emergency Fix environment will mimic the production environment and be accessible by the CGI and State test team to help ensure urgent fixes are retested properly before promotion to production.
Staging	Staging	Production Staging	Release management
Production	Production	Live production (PHX)	Purpose: Provides operational capability.

Environment	Area	Activities	Comments
Disaster Recovery	Disaster Recovery	Standby-Business Continuity (SDC)	Purpose: This is the failover "warm" continuity of operations site for live production environment.

Each of the environments are designed as a three-tiered architecture with isolating firewall and load balancers for security and performance:

- Web / Presentation
- Application / Middleware
- Database Service

Each environment's presentation tier (Web) and application tier will exist as virtual machines hosted within the CGI Government Cloud. The physical database servers will also reside in the CGI Government Cloud.

7.7 Non-Production Environment Configuration

The following diagram provides an overview of the Non-Production environment configuration.

Exhibit 23: Non-Production Environment Configuration – Web Server Configuration

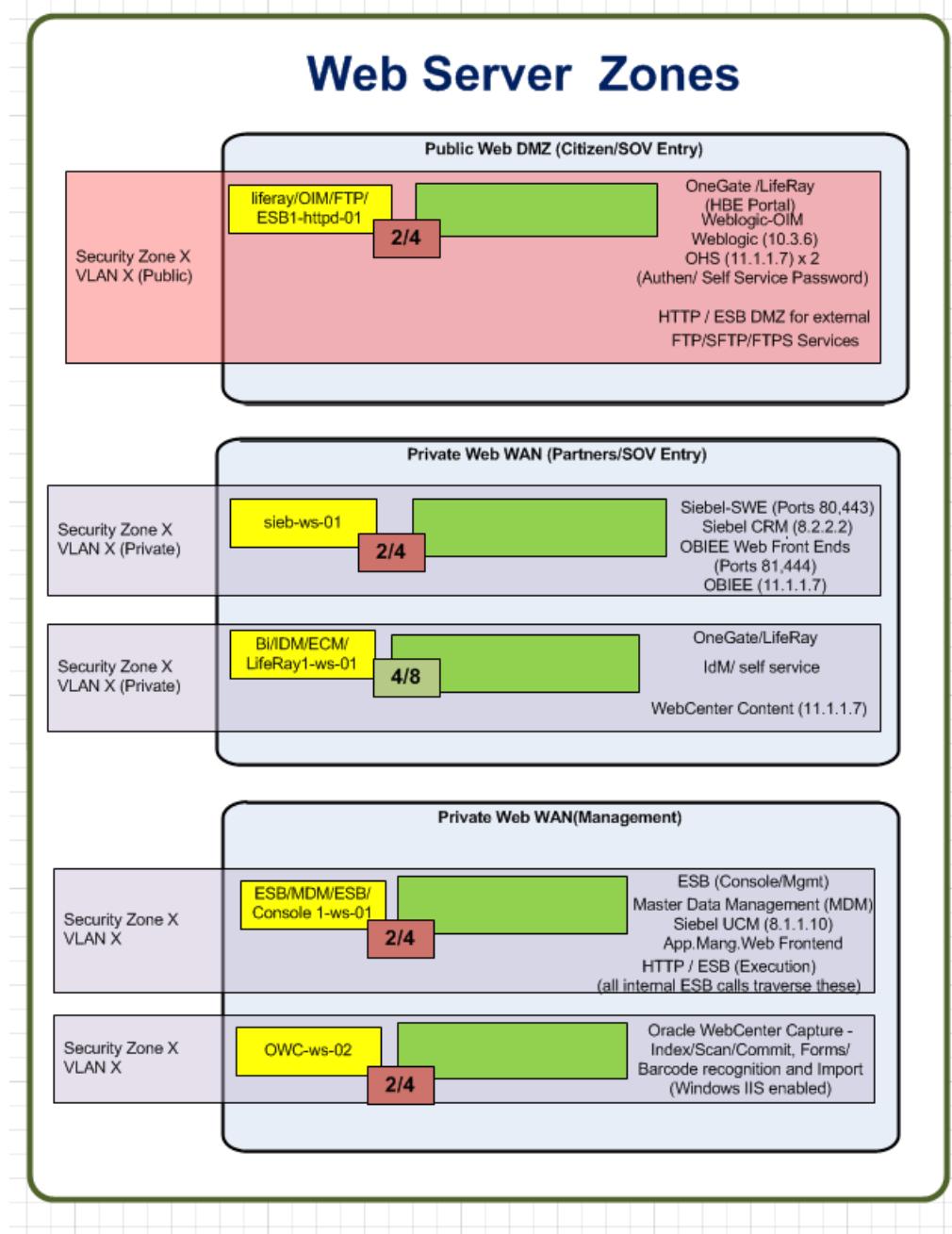
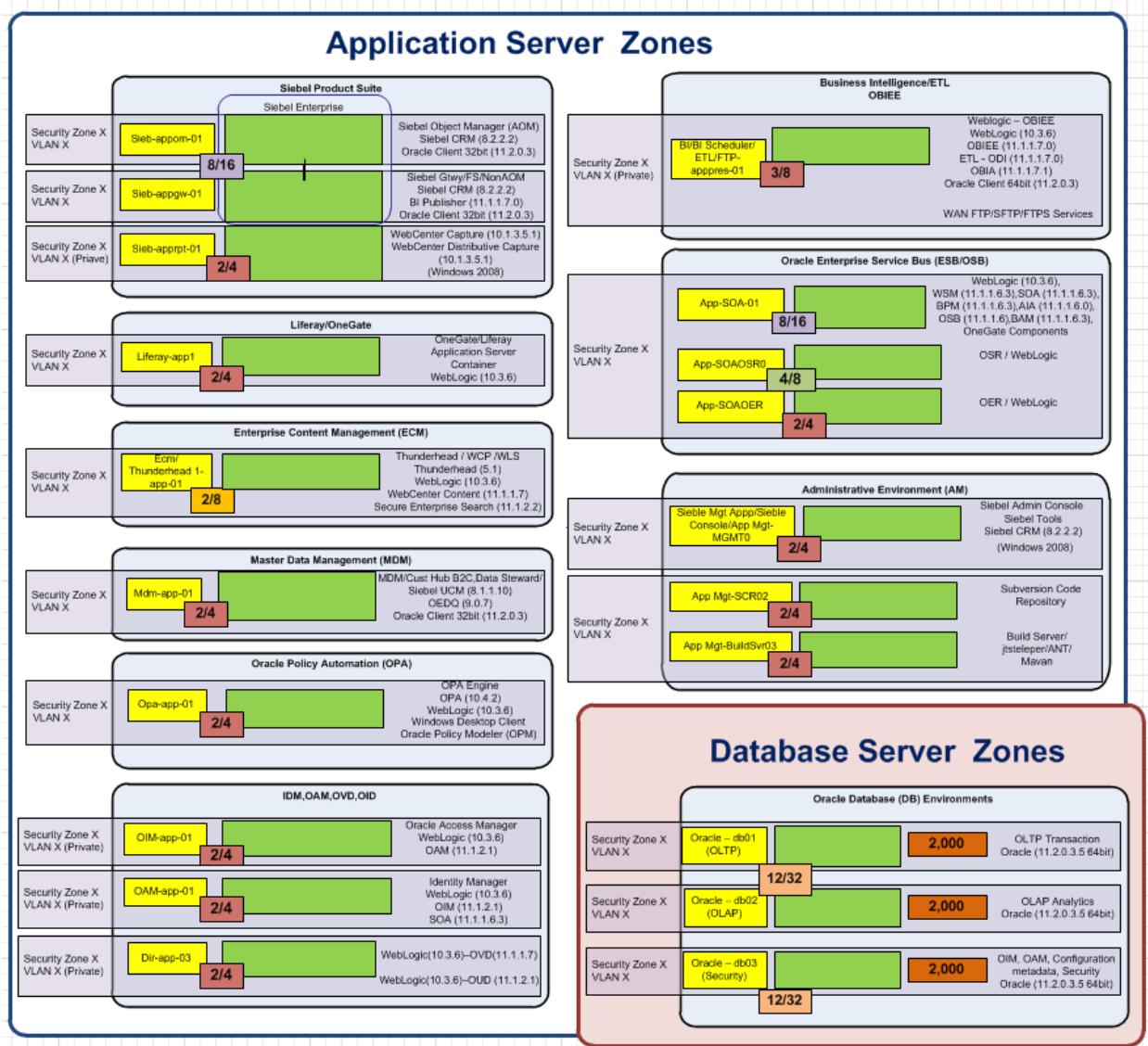
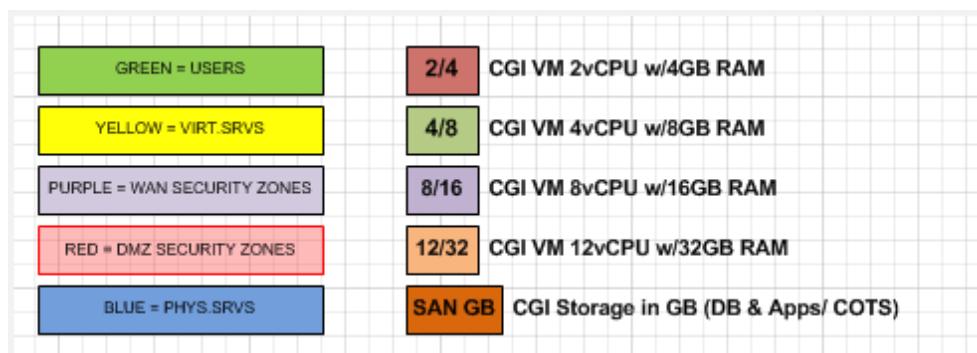


Exhibit 24: Non-Production Environment Configuration – App and Database Server

Exhibit 25: Non-Production Environment Configuration – Legend


7.8 Production Environment Configuration

The following diagram provides an overview of the Production environment configuration.

Exhibit 26: Production Environment Configuration – Web Server Configuration

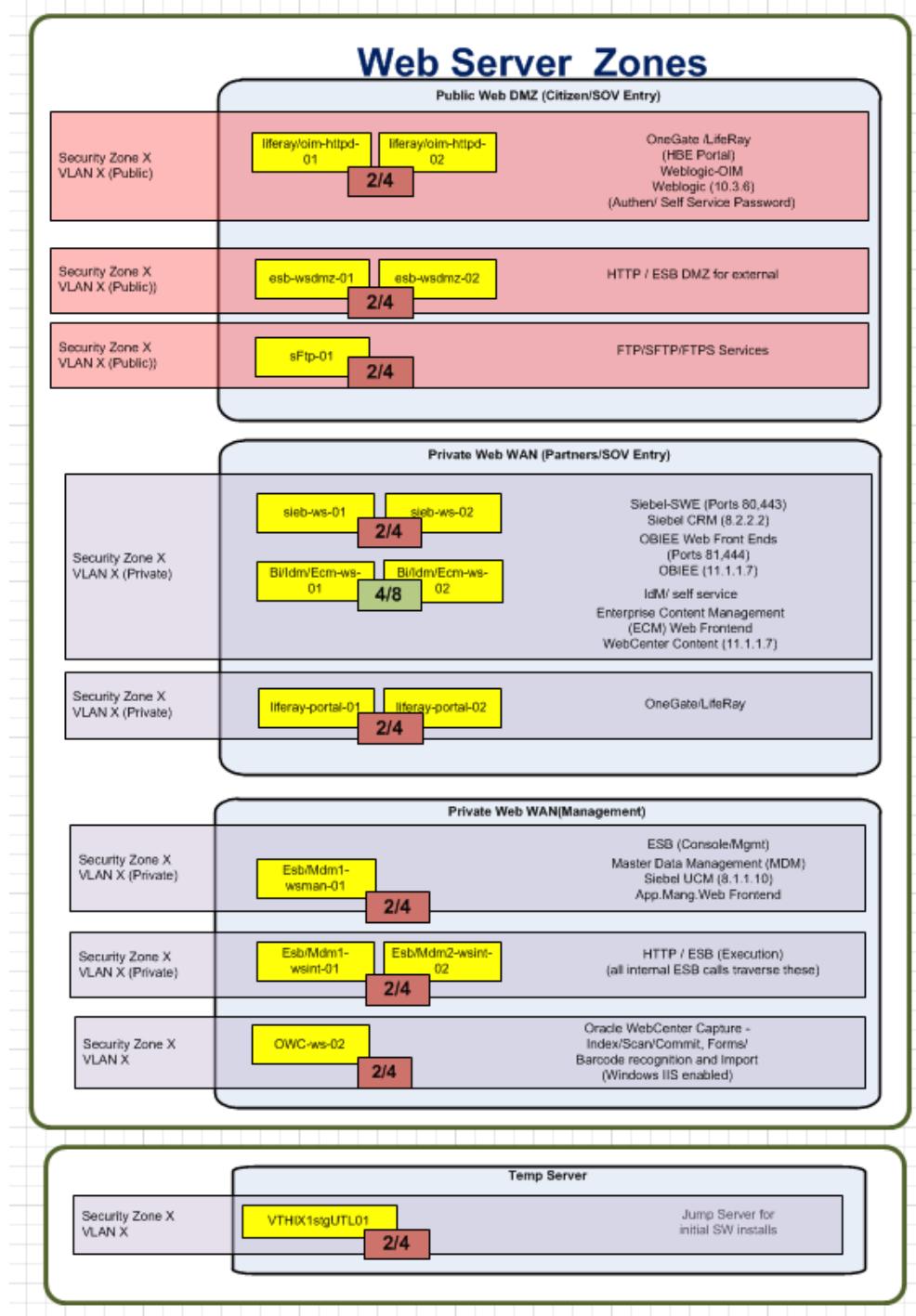
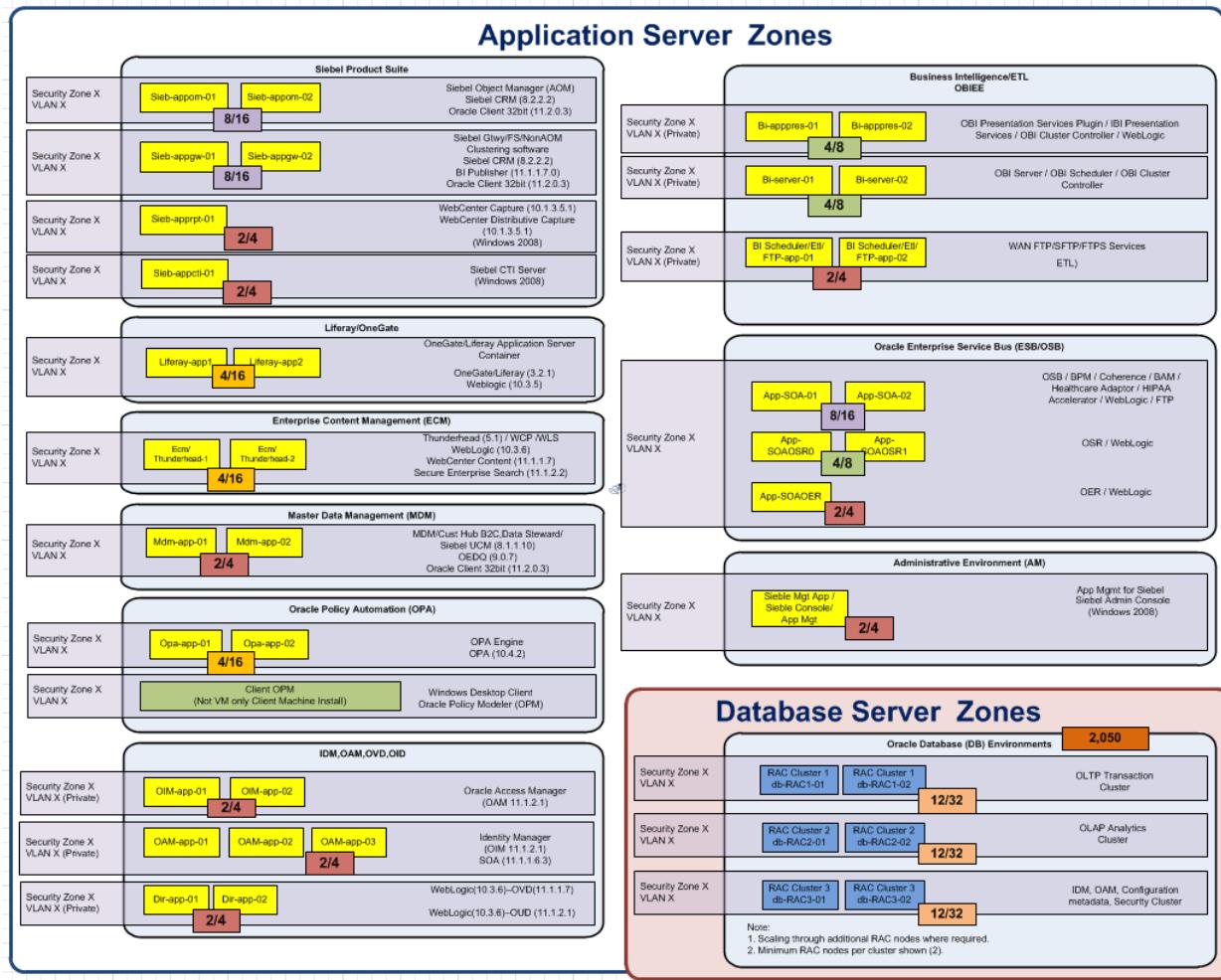
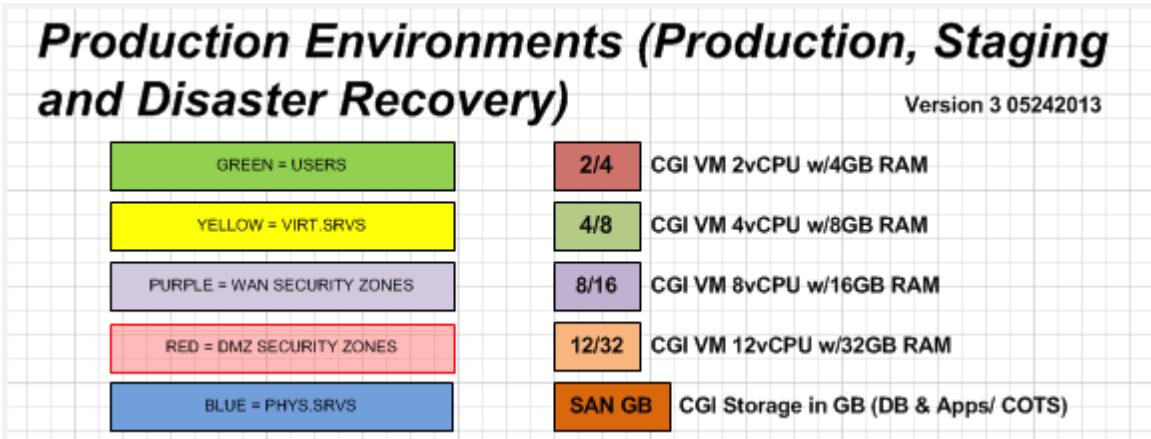


Exhibit 27: Production Environment Configuration – App and Database Server

Exhibit 28: Production Environment Configuration – Legend

Production Environments (Production, Staging and Disaster Recovery)

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7.9 vCloud integration

The CGI Government Cloud will act as Infrastructure as a Service (IaaS) providing the VT HBE a single provider virtual datacenter (vDC) and an organizational virtual (operational) datacenter (vDC) for each of the environments.

7.10 Database Services and Storage

Each environment has a requirement for Oracle services. Due to high transaction volume, Oracle services will utilize RedHat Enterprise physical servers. Oracle encryption will be required on certain portions of the data stores to support Vermont and CMS security requirements.

Each function will utilize active/passive server pairs leveraging within the Phoenix Data Center (PDC) with comparable servers in the Philadelphia Data Center (SDC) Disaster Recovery (DR) environment. Oracle Data Guard will provide the necessary synchronization (active ↔ passive and DR site).

7.11 Security Hardware Architecture

Using the FIPS 199 system categorization process, VT HBE has been identified as having a system security level of Moderate. This categorization provides a basis for identifying a baseline set of security controls (identified in NIST SP 800-53) that are tailored based on CMS guidelines and customer specific security requirements. Additional security controls or modification of the baseline security controls is performed as a result of a risk assessment during the security control allocation phase of the NIST Risk Management Framework (RMF). To begin addressing these security controls, VT HBE will utilize the CMS technical reference architecture and implements a defense in-depth security posture using multiple zones of operation with each zone containing a set of security mechanisms providing protection, access control, and monitoring.

7.12 Additional Infrastructure Requirements

The follow table lists other various infrastructure requirements, as outlined in the VT HBE contract.

Exhibit 29: Other Design Patterns

Feature	Controls
Hosting Infrastructure	Tier 1 Storage Area Network Redundant servers—multiple servers running in parallel using failover clustering for non-stop operations. Automated monitoring and alerting—Server, network, and storage health continuously monitored by automated tools to detect error conditions and alert engineers via pager to correct problems before an outage occurs. Incidents automatically escalated to take corrective action before Service Level Agreements (SLAs) are impacted. Server automated hardware fault reporting—Diagnostic data automatically uploaded to EMC hardware support when failures occur to dispatch technicians with the required parts for onsite repair. Application Performance Monitoring 24x7 support—Our hardware vendors provide with on-site response support 24x7 in less than four hours. Vendor SLAs—We have SLAs with our vendors to provide rapid response to support requests.

Feature	Controls
Network Connectivity	<p>Two telecommunication carriers—connectivity to data centers is provisioned by two different telecommunications carriers.</p> <p>Resilient local access—SONET ring provides redundant network loop at the primary data center; Alternate data center has carrier POPs.</p> <p>Multi-Protocol Label Switching (MPLS)—has high survivability due to its fully meshed nature.</p> <p>Redundant network components—All Local Area Network (LAN) components within the data centers are redundant with automatic failover.</p> <p>Automated alerting—Notifying engineers automatically of high priority incidents via pager ; Automatic escalations occur to take corrective action before SLAs are impacted.</p>
Data Center	<p>Redundant systems—N+1 redundant cooling, power, and telecommunications.</p> <p>Backup power—Uninterruptible Power Systems (UPS) prevent power spikes, brownouts and surges. Two diesel generators provide power in the event of a utility power outage. On site fuel is approximately 7,000 gallons, which can sustain the building for 10 to 12 days.</p> <p>Automated monitoring—Extensive monitoring process of network, servers and applications to detect problems, often before they affect availability and to support capacity-planning services to accurately distribute and accommodate load.</p>
Application	<p>The proposed Technical Architecture leverages a Java EE application server implementation, leveraging the Oracle WebLogic Application Server.</p> <p>Within the Java EE platform, the solution supports a SOA-based implementation with web services exposed for consumption within an enterprise service bus (ESB), a mechanism that manages access to applications and services (especially legacy versions) to present a single, simple, and consistent interface to end-users via Web- or forms-based client-side front ends.</p> <p>With this ability, we can upgrade, move, or replace solution components without disrupting existing business systems or modifying applications. Our solution uses the next generation and powerful Oracle Service Bus (OSB), a part of the Oracle SOA Suite that is highly scalable, supports open standards, and can plug and play along with various application servers.</p>
Data Management	<p>Data Management services include the various structured and unstructured data repositories that support the VT HBE system's business services. The transactional and analytical database for this solution use Oracle 11g with high availability as well as Clustered SQL Server.</p>

7.13 Descriptions of Operational/System Environment and Special Considerations

The Vermont Health Benefit Exchange (VTHBE) system is a collection of online applications delivered as Software-as-a-Service in a cloud computing environment. In this delivery model, CGI is responsible for all of the service delivery layers including; infrastructure (that is, hardware and software that comprise the cloud infrastructure); data security, and service management processes (that is, the operation and management of the infrastructure and the system and software engineering lifecycles). This section provides a high-level overview of the CGI Cloud GSS.

The operational system environment for the VT HBE resides entirely within the virtualized environment of the CGI Infrastructure as a Service (IaaS) "Cloud" defined by the GSA FedRAMP authorization boundary. The authorization boundary for CGI's IaaS Cloud GSS includes type declarations for web hosting services whose controls agencies may reference in their major application authorization package. The CGI IaaS Cloud also includes infrastructure to manage many but not all of the security controls required to achieve an authority to operate (ATO) for a major application. The authorization boundary includes tenant-specific boundaries that CGI establishes for each new tenant in the CGI Data Centers supporting the CGI IaaS Cloud.

CGI provisions each tenant with six network zones implemented with virtual Local Area Networks (VLANs) by default in which they may provision web hosting services. These zones include a web, application and data zone at each of the CGI Data Centers. The tenant is also provisioned with their own dedicated Virtual Private Network (VPN) zone through which they can connect to their network zones and

can access the CGI IaaS Cloud management portal. The VPN zone is routed across all of CGI's data centers supporting the federal cloud. Access into the VPN zone is granted using a Secure Socket Layer (SSL) VPN initiated from the CGI IaaS Cloud public facing website. The CGI IaaS Cloud public website is available over the Internet.

7.14 Applicable Laws or Regulations: VT HBE Security

The following are the laws and regulations that affect the system:

- 42 U.S.C. 300, Patient Protection and Affordable Care Act, 2010
- 44 U.S.C. 3541, Federal Information Security Management Act, 2002
- 5 U. S. C. 552, Freedom of Information Act, 1967
- 5 U. S. C. 552a, Privacy Act, 1974
- 18 U. S. C. 1030 (a) (3), Fraud and related activity in connection with computers
- 38 U. S. C. 218, Security and law enforcement on property under the jurisdiction of the Administration
- 38 U. S. C. 3301, Confidential nature of claims
- OMB Circular A-130, Appendix III, Security of Federal Automated Information Systems
- FIPS 199, Standards for Security Categorization of Federal Information and Information Systems
- FIPS 200, Minimum Security Requirements for Federal Information and Information Systems
- NIST SP 800-18, Guide for Developing System Security Plans
- NIST SP 800-27, Draft, Rev A, Engineering Principles for Information Technology Security (A Baseline for Achieving Security)
- NIST SP 800-30, Draft, Rev A, Risk Management Guide for Information Technology Systems
- NIST SP 800-34, Rev 1, Contingency Planning Guide for Information Technology Systems
- NIST SP 800-37 Rev1, Guide for Applying the Risk Management Framework to Federal Information Systems
- NIST SP 800-42, Guideline on Network Security Testing
- NIST SP 800-53r3, Recommended Security Controls for Federal Information Systems
- NIST SP 800-60, Guide for Mapping Types of Information and Information Systems to Security Categories
- NIST SP 800-61, Computer Security Incident Handling Guide
- NIST SP 800-64, Security Considerations in the Information System Development Life Cycle
- Public Law (PL) 99-474, The Computer Fraud and Abuse Act of 1986
- PL 93-502 - Freedom of Information Act 1974

7.15 Rules of Behavior: Security

Rules of behavior are still under development for the VT HBE; however current policies and procedures within the cloud are based on NIST 800-53 regulations and include the following:

- **Password construction / maintenance** – Passwords are created and maintained in the CGI Cloud accordance with the password policy; Passwords are changed every 90 days.
- **Changing system data** – System data is maintained by authorized users in accordance with the controls under the AC, AU, SA, SI, and CM control objectives.
- **Searching databases** – Database access is based on the concept of “least privilege” access; audit logging and monitoring assist the oversight of database user operations, file integrity and unauthorized changes.

- **Divulging information** – Personnel are to be trained on handling PII and FTI and complete ROB and acknowledgements that limit us.
- **Working at home** – The VT HBE has not determined an appropriate Work at Home model.
- **Dial-in access** – Dial in access is restricted through specific secure channels with appropriately secure computing resources.
- **Assignment and limitation of system privileges** - As described, privileges are maintained by authorized users in accordance with the controls under the AC, AU, SA, SI, and CM control objectives.
- The consequences of non-compliance clearly states the exact behavior expected of each person. Specific consequences are under development.

7.16 Review of Security Controls

The security controls for the CGI Cloud supporting the VT HBE were reviewed in 2011 as part of the GSA FedRAMP Accreditation process, and are reviewed independently by third-party audit annually.

8 Security Controls Detail and Comment

The SSP and SPR coupled together provide the comprehensive control requirements that must be documented for the protection of all data received, stored, processed, and transmitted by the health insurance exchanges and data services hub for implementation of the ACA legislation. Security controls common to both CMS and IRS requirements are documented in the SSP. Security controls specific to the protection of FTI or requirements above the common control baseline must be documented in the SPR. Together, the SSP and SPR form the description of the controls in place to protect all data contained in health insurance exchange and data services hub systems – both FTI and non-FTI.

Please refer to the *D-24 System Security Plan* document for Security Controls Details and Comments. This document contains specific information regarding VT HBE security policies governing Access Control, Audit and Accountability, Certifications, Configuration Management, as well as Identity Management and the tools involved.

9 Other Hardware Protection and Security Measures

The network Infrastructure design for the VT HBE environments will have dedicated security zones and firewall policies to promote isolation from other applications within the data center. Redundant security components such as firewall devices, Intrusion Detection System (IDS), and Intrusion Prevention System (IPS) will be configured to protect HBE environments from potential security attacks.

9.1 Security Devices

The network Infrastructure design will be configured so that all network traffic in the form of data packets to access the VT HBE application for all environments will traverse through secured firewall security devices. The firewall security device setup/configuration will be similar between both the Primary Data Center (Phoenix) and Secondary Data Center (Philadelphia), with the exception that the Primary Data Center will have redundant firewall devices. There will be two firewall devices each for the Production environment and the rest of the test environments configured in the Primary Data Center for redundancy so there will be an automatic fail over to another device should there be problems.

Following the firewall, the network traffic in the form of data packets will then traverse through another level of Intrusion Detection Services (IDS)/Intrusion Prevention technology (IPS) security devices to protect against any unwanted traffic using deep packet inspection. As packets pass through the IPS, they are inspected to determine whether they are legitimate or malicious. This is another security protection,

and its placement protects the IPS/IDS from having to inspect unnecessary traffic that will be dropped by the firewall.

Following the IDS/IPS, depending upon the environment the user is trying to navigate, the network traffic in the form of packets will be routed to that environment network zone as explained below. Each network zone will be configured to have its own, dedicated Virtual Local Area Network (VLANs) so they are further secured and can communicate with one another avoiding any traffic communication issues.

9.2 Security Zones

Security zones are logical entities to which one or more interfaces are bound. Security zones provide a means of distinguishing groups of hosts and block any traffic that has not been explicitly allowed. Any routing between the zones will have to traverse the firewall and, to keep with security policies, each zone is allocated its own VLAN.

There will be three security zones configured per environment including:

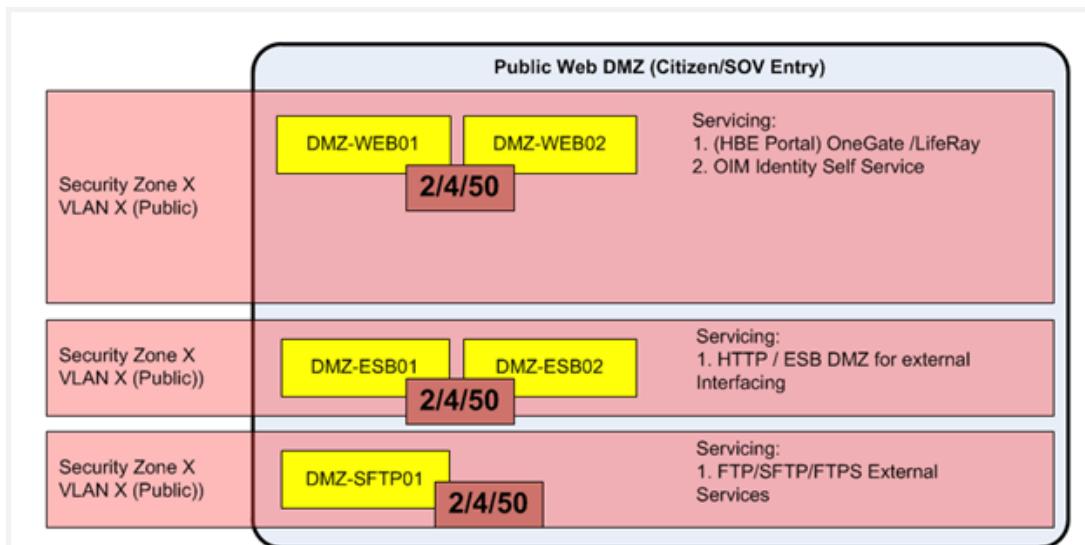
1. External Zone
2. Application Zone
3. Database Zone

9.2.1 Security Zones – External Zone

The External or Web Zone is a demilitarized zone (DMZ) where the external accessible Web/application servers will be configured. In this zone, the configuration will further be designed to have two layers, one for external and the other for internal traffic. This layer three security zone is utilized as a gateway for the load balancer. Network load balancing will be made available on servers in the Web Tier for both external and internal user traffic. Load balancers will be used for distributing load across the Web nodes. Traffic is then sent to multiple hosts from the load balancer as it sees fit in order to keep the traffic load shared among the hosts.

The servers in this zone will be allowed communications using firewall configurations from and to other zones using specific ports per servers.

Exhibit 30: External Zone

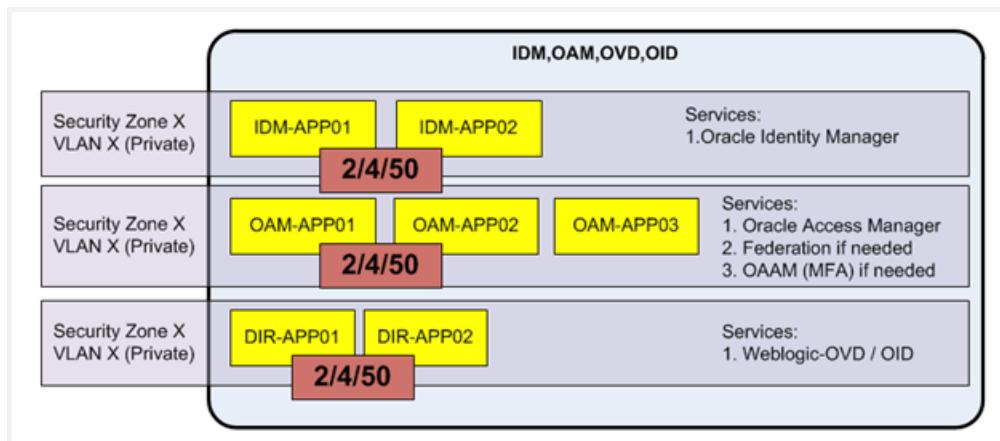


9.2.2 Security Zones – Application Zone

The Application Zone is an internal zone where those application tier/layer components will be configured that cannot be accessed from the Internet users. These additional security measures are designed such that the servers in this zone are not going to be exposed from Internet users.

The servers in this zone will be allowed communications using firewall configurations from and to other zones using specific ports per servers. An example of the Application Security Zone for both Oracle and WebLogic is shown below.

Exhibit 31: Application Zone

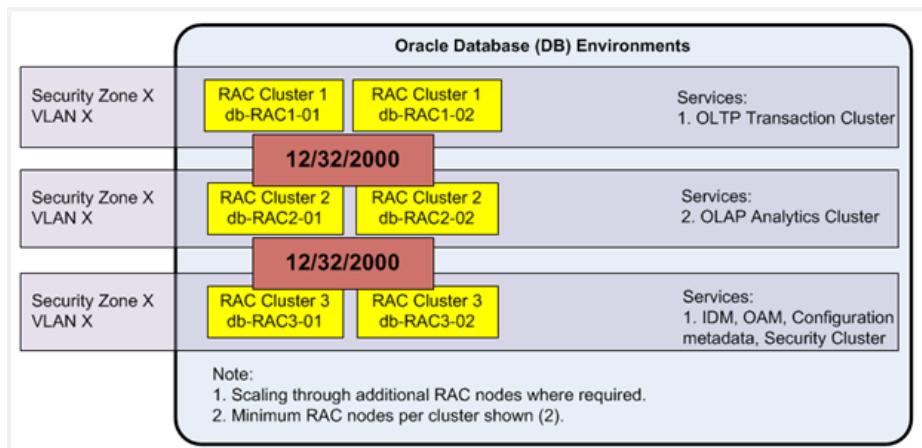


9.2.3 Security Zones – Database Zone

The Database Zone is an internal zone where those database tier/layer components will be configured that cannot be accessed from the Internet users. These are additional security measures designed such that the servers in this zone are not going to be exposed by Internet users.

The servers in this zone will be allowed communications using firewall configurations from and to other zones using specific ports per servers. A sample of a Database Security Zone is shown in the figure below:

Exhibit 32: Database Zone



10 Performance Hardware Architecture

The Vermont Health Benefit Exchange hardware is tuned for optimum performance and scalability. Load balancing and server farms are employed on all levels of the system to spread the load across multiple servers. The Production and Non Production databases are clustered to provide high availability, redundancy, scalability, and security as follows:

1. **High Availability (HA)** – The environment will be designed to be highly available by setting up:
 - a) Virtual environments using OVM (Oracle Virtual Machine) technology
 - b) Physical database servers using Oracle RAC (Real Application Cluster)
 - c) Resources will be channeled dynamically to where they need to be, based on demand, or failure compensation.
2. **Redundancy** – Redundant networking security devices such as routers, firewalls, and network load balancers will be setup to promote reliability
3. **Scalability** – Additional computing resources will be added to the infrastructure as required
4. **Security** – Network will be setup using multiple security zones. One security zone per environment will be configured with firewall rules to provide controlled access to a specific zone

The infrastructure described above, along with the items described in the next section will result in optimal hardware reliability and performance.

10.1 Architectural Performance Guidelines

1. Segregate application services and installs (minimize running everything on 1 server)
2. Clearly define security boundaries between users, web (dmz,WAN), application and database zones.
3. Design for quick and predictable vertical and horizontal scaling.
4. Vertical scaling through more CPU, memory, disk space, and a virtual infrastructure
5. Horizontal scaling through load balanced web, application and database instances
6. Segregate database workloads based on usage. OLTP (Transactional), versus OLAP (Star Schema) versus Other (Security)
7. All interactions between autonomous applications will utilize Enterprise Service Bus for data access.

10.2 Software Architecture

The Software Architecture is primarily a system of layered containers, the foremost of which is WebLogic Server (WLS), providing classical High Availability (through clustering and resource allocation), Security support, and Configuration and Operational Management services. There are numerous WLS instances in the OneGate system – an Administration Server that serves as a primary director, and several Managed Servers that provide specific areas of support, including SOA Server, WebCenter, IDM and others. There is, in fact, an instance of a Managed Server supporting most Oracle system components.

The Managed Servers provide a wide array of tools for support of their respective portion of the overall solution software; providing tools for monitoring, configuration, loading, and unloading of executable components and tracking performance and loading.

Layered on top of these underlying infrastructure components are the application layers noted earlier in this document: Presentation, Middleware, and Data.

From an application server perspective, the primary component is the Liferay Portal. Liferay is based on an MVC pattern through its use of JSP's for providing page content and Portlet support. Additionally, it supports an Inversion of Control (IoC) pattern implementation through its use of the Spring Framework. The primary toolsets needed for development and maintenance are:

- Eclipse for maintenance and coding of JSP's and Spring code
- SQL Developer for database and stored procedure development and maintenance
- Subversion for code control
- Maven for automated build management

There is also a presentation layer provided by Siebel, though Siebel is an exception to the general Oracle approach of layered containers. It does not directly rely on a Managed Server, and interface development and maintenance is provided for within the product itself.

Middleware is an essential layer in the OneGate system, as well as more generally in the overall VT HBE solution. We divide the VT HBE solution into two fundamental logical layers – Internal and External.

Internal consists of the OneGate system, while external is a completely custom layer providing interfaces to external partners for the VT HBE (for example, Carriers, CMS, Premium Processor, and SERFF). A fundamental architectural premise in the VT HBE system is that all communication to the external world be routed through the external integration layer; so, for instance, no Liferay or Siebel functional module would ever directly integrate to a Carrier or communicate to a CMS service – all would be directed through the external integration layer.

Both internal and external middleware rests primarily on the Oracle SOA Suite, and an underlying Oracle Service Bus implementation. The primary tool of development, maintenance and deployment is Oracle's JDeveloper.

The middleware layer (specifically SOA Suite-based composites) will utilize another SOA Suite product – the Oracle Business Rules (OBR). This product provides for both table-based and hierarchical rules configuration that can be carried out dynamically, without needing to redeploy code. The OBR will provide a repository for business domain experts to dynamically configure business-driven operational rules for the OneGate application systems.

OBR is not the only rules repository – there is also a significant rules foundation provided in another Oracle product – Oracle Policy Automation (OPA). This product represents another departure from the Oracle WLS-based architecture and is very much a stand-alone system in the same vein as Siebel. Similar to Siebel, OPA rules modeling takes place within the system itself, in its own IDE called Oracle Policy Modeler (OPM). The expression of the rules, within OPM, actually occurs in a Microsoft Word or Excel document structure.

Other Oracle systems providing application software support are:

- Identity Management (IDM) Software SuiteeBCenter Content
- OBIEE
- MDM

These are described elsewhere in this document, but configuration and solution deployment for all of these are provided in precisely the same fashion as noted above – configuration is carried out through managed server pages and any coding customization, as appropriate, is handled through JDeveloper.

The following table provides a list of Software being utilized for the VT HBE solution.

Exhibit 33: Software Utilized for the VT HBE Solution

Tier	Web/App/DB Zones from Visio	Application
Web	Public Web DMZ (citizen/SOV Entry)	OneGate /Liferay (HBE Portal)
Web	Private Web WAN (Partner/SOV Entry)	Siebel-SWE
Web	Private Web WAN (Partner/SOV Entry)	Oracle - OBIEE Web Front Ends; OneGate /Liferay
Web	Private Web WAN (Management)	Master Data Management (MDM) App.Mang.Web Frontend
Web	Private Web WAN (Management)	Oracle WebCenter Capture - Index/Scan/Commit, Forms/Barcode recognition server and Import server components
App	Siebel Product Suite	Siebel - Object Manager AOM
App	Siebel Product Suite	Siebel Gateway / FS / EIM / EAI / Workflow / Assignment MGR
App	Siebel Product Suite	Siebel Report Server Windows
App	Liferay/OneGate	OneGate/Liferay Application Server Container
App	Enterprise Content Management (ECM)	Thunderhead NOW Web Center Content
App	MDM	Master Data Management (MDM)
App	Oracle Policy Automation (OPA)	OPA Engine / Windows Desktop Client / Oracle Policy Modeler (OPM)
App	IDM, OAM, OVD, OUD	Oracle Identity Manager (OIM) / Oracle Access Manager (OAM)
App	IDM, OAM, OVD, OUD	Oracle Access Manager (OAM)
App	IDM, OAM, OVD, OUD	WebLogic; Oracle Unified Directory (OUD)/ Oracle Virtual Directory (OVD)
App	Business Int/ETL/OBIEE	OBI Presentation Services Plugin / IBI Presentation Services / OBI Cluster Controller / WebLogic
App	Oracle Enterprise Service Bus (ESB/OSB)	OSB / BPM / Coherence / BAM / Healthcare Adaptor / HIPAA Accelerator / WebLogic / FTP
App	Oracle Enterprise Service Bus (ESB/OSB)	OSB / BPM / Coherence / BAM / Healthcare Adaptor / HIPAA Accelerator / WebLogic / FTP
App	Oracle Enterprise Service Bus (ESB/OSB)	OSB / BPM / Coherence / BAM / Healthcare Adaptor / HIPAA Accelerator / WebLogic / FTP
App	Administrative Environment (AM)	App Mgmt for Siebel
Database	Oracle Database (DB) Environment	OLTP Transaction Cluster
Database	Oracle Database (DB) Environment	OLAP Analytics Cluster
Database	Oracle Database (DB) Environment	IDM, OAM, Configuration metadata, Security Cluster
App	Administrative Environment (AM)	Subversion - Code Repository
App	Administrative Environment (AM)	Build Server

10.3 Security Software Architecture

The Vermont Health Benefits Exchange (VT HBE) is owned by the Department of Vermont Health Access (DVHA). The hardware is leased from a contractor, CGI, who maintains and operates it. CGI provides full IT infrastructure services from its secure, state-of-the-art Phoenix Data Center in Phoenix, Arizona, USA. This facility is fully provisioned with appropriate redundancy, security, and maintenance processes to ensure high availability. The facility is ISO 9001 compliant, uses Information Technology Infrastructure Library (ITIL) v3 for its service delivery framework, is SAS70 Type II /SSAE 16 SOC 2 audited, and meets US Federal security standards in compliance with the Federal Information Security Management Act (FISMA).

CGI will provide the VT HBE with 24/7/365 availability with 99.9% uptime through server redundancy and data replication. Primary and secondary data centers will provide Disaster Recovery and Continuity of Operation's needs, high availability with a recovery time objective of 72 hours, and a recovery point objective of 8 hours. Resources can be instantiated and decommissioned within moments through automated provisioning and change management of the portal.

CGI provides a robust automated system that adheres to ITIL IT Service Management and is accessible through an online user portal or Application Programming Interfaces (APIs). The infrastructure provides a secure environment of "moderate" risk profile as defined by the security controls delineated in NIST Special Publication 800-53.

CGI achieves high availability to meet 99.9% up time through an infrastructure engineered with redundancy and automatic failover for critical devices including network and storage and use highly reliable server hardware platforms with redundant components (such as power supplies) and fail-soft components (such as memory). In the event a physical server fails, virtual machines are automatically moved to another server. CGI maintains sufficient capacity to allow for failover.

All communications with external information systems are protected by Web Application Firewalls, , Network Intrusion Detection and Intrusion Protection Systems (IDS and IPS), and auditing and logging is conducted. Several protocols will be supported based on the needs of the external system, including encrypted Web/Service Oriented Architecture (SOA) service, and secure file transfer protocol (SFTP) that is allowed for bulk transfer of data.

All communications with users is conducted through the Presentation Services, are encrypted, and go through firewalls and an intrusion detection system (IDS). The system architecture is designed to ensure applications are not security dependent, and can be added without disrupting the overall information system security posture. Communications with external systems (state, federal, carrier, etc.) are encrypted (TLS or SFTP), contain identification and authorizations mechanisms, and provide auditing of systems and users. The disaster recovery area ensures availability of the information system in case of disaster.

The network topology within the VT HBE information system is composed of both virtual and physical machines. All user and support applications are hosted in a virtual environment and some data management servers are physical machines.

The physical, personnel and environmental security details are further identified in Section 3 Security Controls Details and Comments of the D-24 System Security Plan.

10.3.1 Privacy Safeguards

In establishing the VT HBE, CGI and DVHA have developed and implemented a privacy program to meet the requirements of 45 CFR 155.260 and Publication 1075, Tax Information Security Guidelines for Federal, State and Local Agencies for all Personal Identifiable Information (PII) and Federal Tax Information (FTI) collected, processed or stored by the VT HBE.

The VT HBE privacy program includes all policies and procedures necessary to manage PII and FTI through the information lifecycle, leveraging Fair Information Privacy Principles (FIPPS) to maintain transparency and accountability in the use of Vermont citizens' private data in the Exchange. Additionally, The HBE has established a breach notification process to manage inadvertent disclosure or misuse of PII and minimize loss and operational impact.

The VT HBE technical architecture is compliant with Federal Enterprise Architecture Framework (FEAF), and aligns well with the DHHS CMS Guidance for Exchange and Medicaid Information Technology (IT) Systems and Medicaid Information Technology Architecture (MITA).

These industry and federal guidelines promote the use of key standards that are also supported with Technical Architecture such as SOAP, XML, UDDI, WSDL, BPEL, SAML, and NIST security standards.

Exhibit 34: Technical Architecture Capabilities and Features

Representative Technical Architecture Capabilities	Technical Architecture Features
Web services and adherence to key frameworks and standards	<ul style="list-style-type: none"> ▪ FEAF, MITA, and SCEA frameworks and standards ▪ Open standards such as SOAP, XML, UDDI, WSDL, BPEL, SAML and NIST security ▪ OTech standards and guidelines for flexibility in on-premise hosting should the State desire an alternative to Cloud Computing implementation ▪ Messaging formats such as HIPAA 834 and 270/271
Scalability and optimized resource utilization	<ul style="list-style-type: none"> ▪ Multi-tiered architecture ▪ Clear separation between presentation, application, and database tiers enable horizontal and vertical scalability ▪ Virtualization ▪ Clustering solutions
Communication, Data, and Process Integration	<ul style="list-style-type: none"> ▪ Use of ESB for reliable communication channels and protocols for integration ▪ Synchronous and asynchronous communication operations
Fault Tolerance	<ul style="list-style-type: none"> ▪ Redundancy to minimize single points of failure ▪ Use of redundant components ▪ Failure detection ▪ Recovery and bypass mechanisms built into the solution ▪ Auto-reconfiguration to minimize downtime
Fault Avoidance	<ul style="list-style-type: none"> ▪ Use of highly reliable solution components containing data loss

10.4 Functional Activity Logging

The Vermont Health Benefit Exchange System will record and maintain a log of certain functional activity.

Each application component will create its own logs, and a composite service will collect, collocate, and correlate all activities performed by each user and functional activities performed by the System on behalf of each user.

The activity logs will contain records of system usage (logins); user activity (pages viewed, data entered and actions taken); user interaction patterns such as use of decision tools, filters and sorts; services invoked; data exchanged; and the like. The logging service will add meta-data such as activity origination, timestamp, and actor ID to facilitate correlation and audit reviews.

10.5 Technical Monitoring, Logging, and Auditing

Auditing requirements include the standard Government Cloud offering, as well as additional, more granular audit trails resulting from the design phase. The auditing and monitoring solution highlights include:

- Conform to a standard process for generating, transmitting, storing, analyzing, and disposing of security log data.
- Routine log analysis for identifying security incidents, policy violations, fraudulent activity, and operational problems.
- User-friendly audit trail to capture a history of certain transactions processed by the system.
- Utilize security features such as role-based access controls and auditing of administrative actions to provide an accountability audit trail among the administrators.
- Configure monitoring tools to alert assigned automation system administrators to address processing failure.

10.6 Other Security Measures

Software used in the Vermont Health Benefit Exchange goes through strict evaluation for security and is tested to meet the security standards of both the State of Vermont and CGI before it is purchased. In addition to these evaluations, CGI employs the following security architecture software installed on CGI servers:

- **Eavesdropping Resistance:** The information systems utilize eavesdropping resistant protocols to make it impractical for an attacker to carry out an off-line attack where he/she records an authentication protocol run then analyses it on his/her own system for an extended period, for example by systematically attempting to try every password in a large dictionary, or by brute force exhaustion.
- **Password Guessing Resistance:** The information system protects against password guessing by requiring use of high-entropy passwords and limiting the number of unsuccessful authentication attempts, or by controlling the rate at which attempts can be carried out.
- **Hijacking Resistance:** The information system uses an authentication and transfer protocol combination which is resistant to hijacking if the authentication is bound to the transfer in a manner that prevents an adversary capable of inserting, deleting, or rerouting messages from altering the contents of any information sent between the claimant and the relying party without being detected.
- **Verifier Impersonation Resistance:** The information system uses a secure authentication protocol that is resistant to verifier impersonation if the impersonator does not learn the value of any token when acting as the verifier.
- **Man-in-the-middle Resistance:** The information system uses authentication protocols that are resistant to a man-in-the-middle attack when both parties (for example, claimant and verifier) are authenticated to the other in a manner that prevents the undetected participation of a third party.

10.7 VT HBE User Authentication, Authorization, and Account Management

This section describes the VT HBE application's user authentication, authorization, and account management design using Oracle Identity and Access Management solution. The Oracle Identity Management suite is comprised of tools that collectively offer identity and access management capabilities to the VT HBE. These solutions are described in the following table.

Exhibit 35: Oracle Identity and Access Management Solution Tools

Oracle Identity & Access Management Solution	Description
Oracle Universal Directory (OUD)	<ul style="list-style-type: none"> ▪ The user authentication repository for the VT HBE ▪ It stores user's basic profile along with security attributes (e.g., password, access roles)
Oracle Identity Manager (OIM)	<ul style="list-style-type: none"> ▪ Used for user account management operations (e.g., create, add, disable) ▪ Assigns user account policies during account operations ▪ Single point of control for the user repository (security) of the VT HBE
Oracle Access Manager (OAM)	<ul style="list-style-type: none"> ▪ Enforces user authentication and authorization to the VT HBE application screens ▪ Enforces account policies (for example, session timeout, account lockout) ▪ First line of defense for user authorization (that is, determines access to VT HBE screens) to the HBE application
Oracle Adaptive Access Manager (OAAM)	<ul style="list-style-type: none"> ▪ Works in collaboration with OAM to enforce authentication to the VT HBE application screens ▪ Enforces multifactor authentication for a privileged user accessing the VT HBE application screens

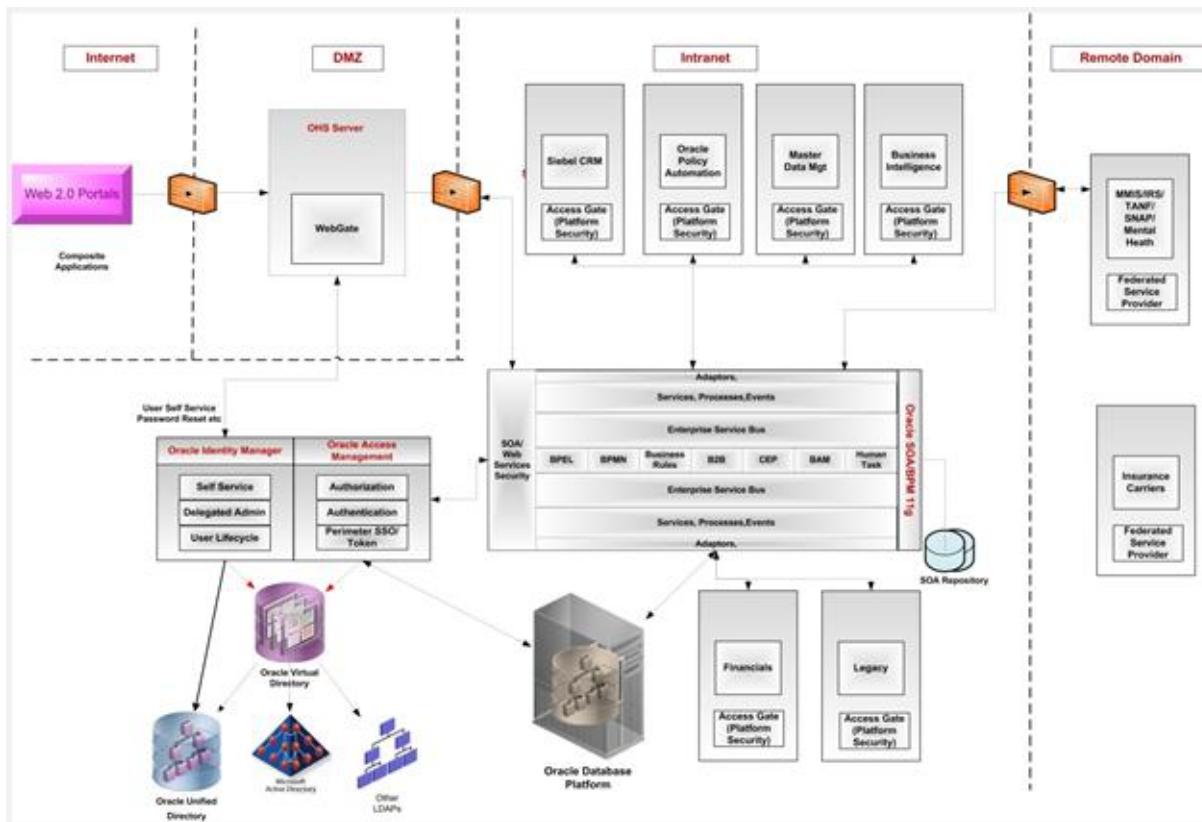
10.8 Logical Design: Access and Identity Management

This section provides the logical design view of VT HBE's identity and access management solution that is comprised of Oracle Identity Manager (OIM), Oracle Access Manager (OAM), and Oracle Unified Directory (OUD). All the process steps for Oracle Identity Manager and Oracle Identity Manager SOA are background processes that get executed on their respective servers.

10.9 Logical Architecture for User Account Management

Oracle Identity Management solution's tool is used for managing both external users VT HBE who access the portal, and internal VT HBE users who might not access the portal. The user account management processes include account management actions such as creating users, creating organizations, updating user profiles, updating organization profiles, enabling users, disabling users, and changing passwords.

Exhibit 36: User Authentication and Authorization: Solution Overview



The components shown in the figure above are described in the following table:

Exhibit 37: User Account Management: Components

No.	Component	Utilized For:
1.	OIM	<ol style="list-style-type: none"> 1. User registration and maintenance for the following set of users: <ol style="list-style-type: none"> a) Internal b) External c) System accounts 2. Managing and enforcing password policy for the VT HBE application
2.	Oracle Unified Directory (OUD)	<ol style="list-style-type: none"> 1. Serving as the LDAP based authentication user store for the VT HBE application 2. Persisting: <ol style="list-style-type: none"> a) VT HBE application user profile b) VT HBE application user authentication credentials 3. VT HBE application user authorization
3.	OIM Database	<ol style="list-style-type: none"> 1. Storing OIM access policies and password policies 2. Storing OIM approval/provisioning/schedulers configurations

No.	Component	Utilized For:
5.	OIM API Package	Providing a Java-based application programming interface (API) package that externalizes key OIM functions that can be invoked from the HBE application for user management scenarios
6.	Oracle Virtual Directory	Oracle Virtual Directory provides Internet and industry-standard LDAP and XML views of existing enterprise identity information, without synchronizing or moving data from its native locations.
7.	Lightweight Directory Access Protocol (LDAP)	LDAP is a standard, extensible directory access protocol. It is a common language that LDAP clients and servers use to communicate.

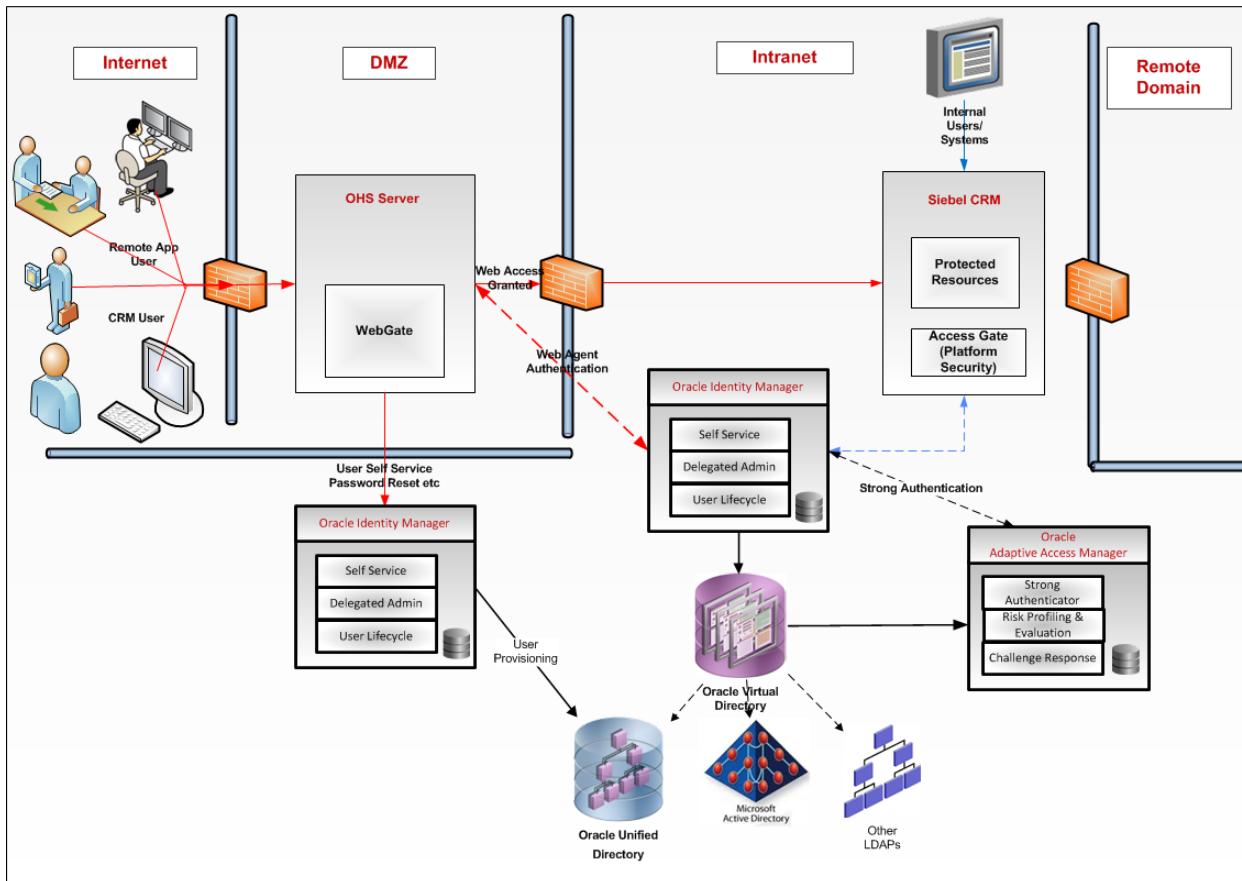
11 Multi-Factor Authentication (MFA): E- Authentication Assurance Levels – NIST 800- 63

Assurance Level	Identity Proofing Requirements	Authentication Requirements
Level 1 affords little or no confidence in the asserted identity's validity.	Identity proofing relies on the subscriber's own assertions.	Single factor authentication, such as a username and password, is adequate.
Level 2 provides some confidence in the asserted identity's validity.	Identity proofing requires verifying the individual's government-issued ID or financial account information, and other information.	Single factor authentication, such as a username and password, is adequate.
Level 3 provides high confidence in the asserted identity's validity.	Identity proofing requires verifying the individual's government-issued ID, a financial account information, and other information.	Multifactor authentication is required.
Level 4 provides very high confidence in the asserted identity's validity.	In-person proofing is required.	Multifactor authentication is required.

11.1 Logical Architecture for User Authentication and Authorization

OAM is the tool from the Oracle IDM solution that are used for authentication and authorization for users who will access the VT HBE application. The user authentication processes include validating user credentials, authorizing users to the VT HBE application screens, enforcing multifactor authentication, managing session timeouts and inactivity timeouts.

Exhibit 38: Complete IDM Logical Architecture



The functions of each component depicted in the preceding Exhibit are described in the following table:

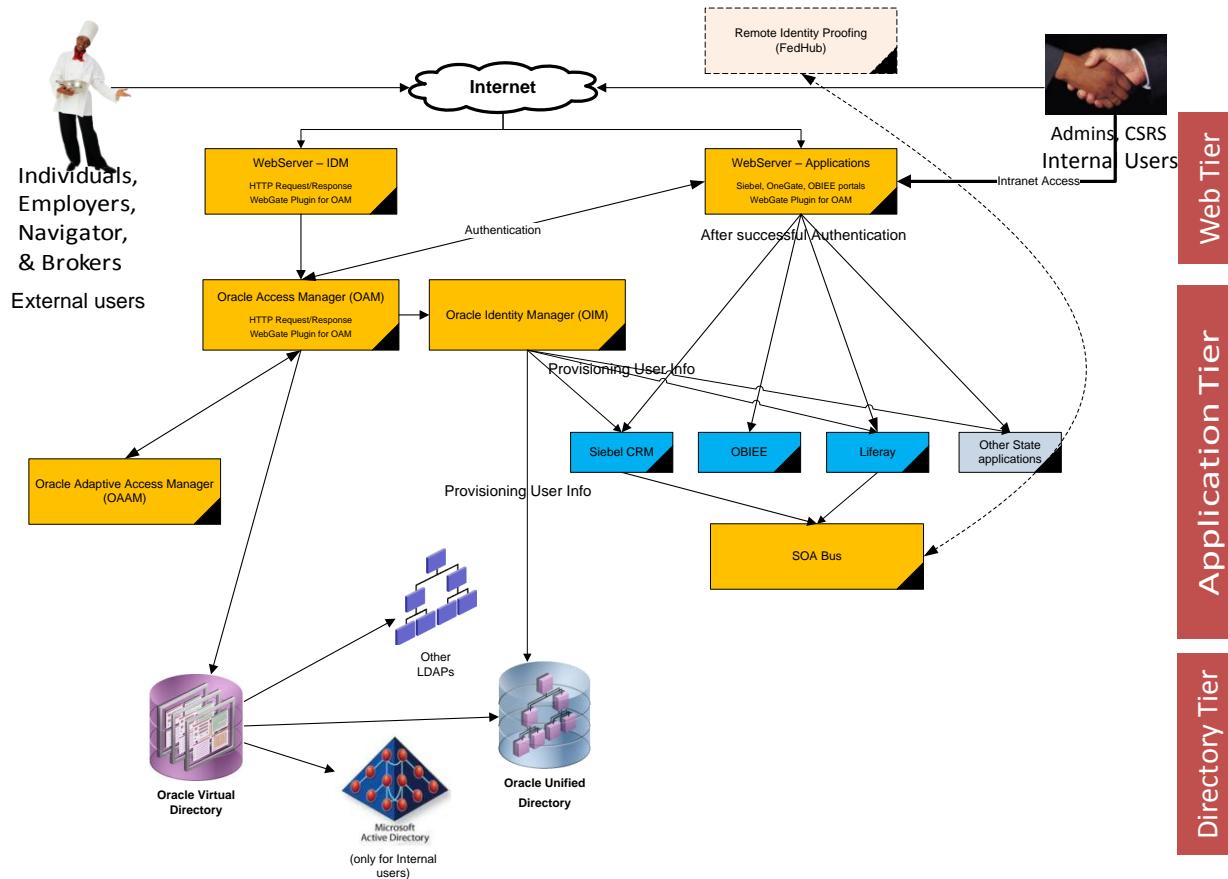
Exhibit 39: Component Features

No.	Component	Utilized For:
1.	OAM	<ul style="list-style-type: none"> ▪ Authenticating and authorizing users ▪ Identifying user's role and group membership ▪ Enforcing password policy ▪ Providing advanced status flags such as Reset Password, Password Expired, User Locked, and others
2.	OUD and OVD	<ul style="list-style-type: none"> ▪ OUD serves as the LDAP based user store for the VT HBE application ▪ OUD provides credential validation and user details retrieval functionality ▪ OVD (Oracle Virtual Directory) is an LDAP service that provides a single, abstracted view of enterprise directory servers and databases from a variety of vendors.
3.	OAM Agent	<ul style="list-style-type: none"> ▪ Intercepting Web requests and enforcing access management policies for authentication and authorization ▪ Communicating with OAM on SSL port with message encryption using webserver specific encryption keys
4.	OAM Database	<ul style="list-style-type: none"> ▪ Persisting policies and configuration details for OAM server ▪ Persisting protection scheme details for the VT HBE application screens for authentication and authorization
5.	OAAM	<ul style="list-style-type: none"> ▪ Supporting primary and multi-factor authentication by working in collaboration with OAM
6.	OAAM Database	<ul style="list-style-type: none"> ▪ Storing OAAM user store for the VT HBE application ▪ Policy and metadata store for OAAM
7.	SOA for OIM	<p>Workflow-based provisioning is a key feature of Oracle Identity Manager that enables you to automate the business processes that manage user access in an organization. Oracle Identity Manager leverages services enabled and managed by Oracle Service-Oriented Architecture (SOA) Suite to provide an interactive environment to request, approve, and manage user access. Oracle SOA Suite provides the back-end services and management capabilities required to implement SOA.</p> <p>Oracle Identity Manager makes use of the following components of the SOA Suite:</p> <ul style="list-style-type: none"> ▪ BPEL Process Manager, which provides the end-to-end solution for creating and managing business processes ▪ Human Workflow, which manages the lifecycle of human tasks, including creation, assignment, deadlines, expiration, and notifications ▪ Oracle Business Rules, which allows you to define complex business rules to support request assignment, process selection, and approver resolution

The next section describes various architecture views (Logical, Component and Network) used in the VT HBE project.

11.2 Component Architecture

Exhibit 40: Component Architecture



The component topology consists of the following tiers:

- **Database Tier** – The database tier is the deployment tier where all the databases reside. The Oracle products such as Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Identity Manager, and Oracle Unified Directory tie to the Database Tier.
- **Directory Tier** - The directory tier is the deployment tier where all the LDAP services reside. This tier includes the Oracle Unified Directory and Oracle Virtual Directory. The directory tier is tied with the data tier. The directory tier stores two types of information:
 - ▶ Identity Information: Information about users and groups
 - ▶ Oracle Platform Security Services (OPSS): Information about security policies and component configuration
 The directory tier is called a “split directory topology” with user identity data stored in Oracle Unified Directory and Microsoft Active Directory. The Oracle Virtual Directory presents the user and group identity data in a single consolidated view that Oracle Identity Management components can interpret.
- **Application Tier** – The application tier is the tier where Java EE applications are deployed. The Oracle Identity Manager, Oracle Access Manager, Oracle Adaptive Access Manager, Oracle Directory Services Manager and Oracle Enterprise Manager Fusion Middleware Control are the key Java EE components that are deployed in this tier. Most Fusion Middleware Applications in this tier

run on Oracle WebLogic Server platform. The Identity Management applications in the application tier interact with the directory tier as follows:

- ▶ They leverage the directory tier for enterprise identity information
- ▶ They leverage the directory tier (and sometimes the database in the data tier) for application metadata
- ▶ Oracle Enterprise Manager Fusion Middleware Control and Oracle Directory Services Manager are administration tools that provide administrative functionality to the components in the application tier as well as the directory tier. Oracle Enterprise Manager Fusion Middleware Control is integrated with Oracle Access Manager using the Oracle Platform Security Services (OPSS) agent
- **Web Tier** – The web tier is in the DMZ Public Zone. The HTTP Servers are deployed in the web tier. On the firewall protecting the web tier, only the HTTPS port (443) is open. The HTTP servers contain two agent modules (also called “plugins”):
 - ▶ WebGate Agent – This module each acts as the policy enforcement Agent. It operates as a filter for HTTP requests. The WebGate is an out of the box access client. This Web server access client intercepts HTTP requests for Web resources and forwards these to the OAM 11g Server for web access security policy evaluation.
 - ▶ WebLogic Agent – This module (mod_wl_ohs) allows requests to be proxied from Oracle HTTP Server to Oracle WebLogic Server. The module does a simple round-robin between all available servers. The WebLogic server and WebLogic agent maintain a dynamic server list. The WebLogic server and the agent/module work together to update the server list automatically with new, failed, and recovered cluster members.

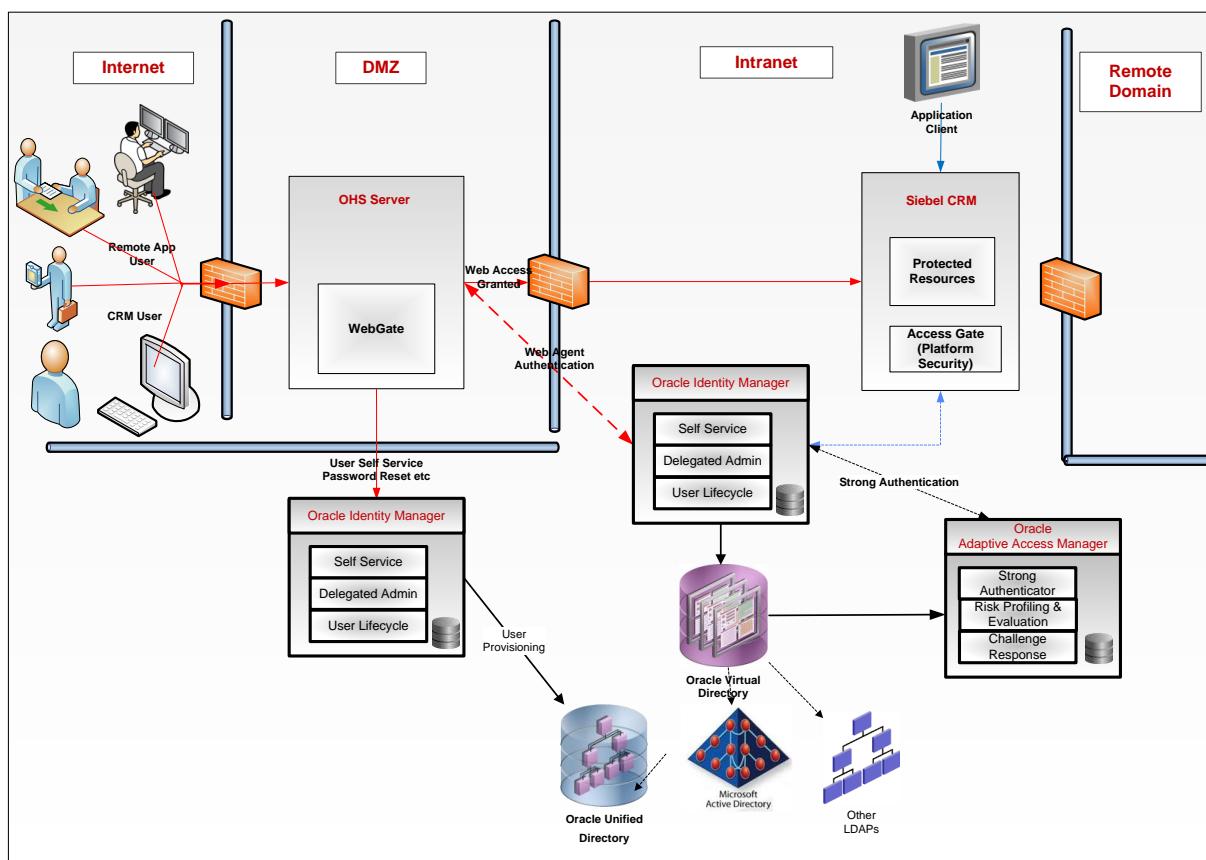
11.3 VT HBE Applicable Solution Architecture:

The Solution Architecture below lists two scenarios applicable to the VT HBE requirements.

1. The first is Web Authentication using the Perimeter SSO functionality (shown in red arrows). A user attempting to access a protected resource is intercepted by the 'Web Agent' that checks for a 'Security Token'. If the token is not found the user is directed to the 'Authentication Service' where the user is authenticated and a SSO token is provided. User presents the token to the Application server hosting the protected resource to secure access. This would be primarily used for access Siebel CRM application or SOA based functionality.
2. The second is Application to Application Interaction using server based authentication interface (blue lines/arrows). Here the perimeter authentication is not performed. Instead the client presents identity credentials authenticated via a server-based authentication interface (Platform Services).

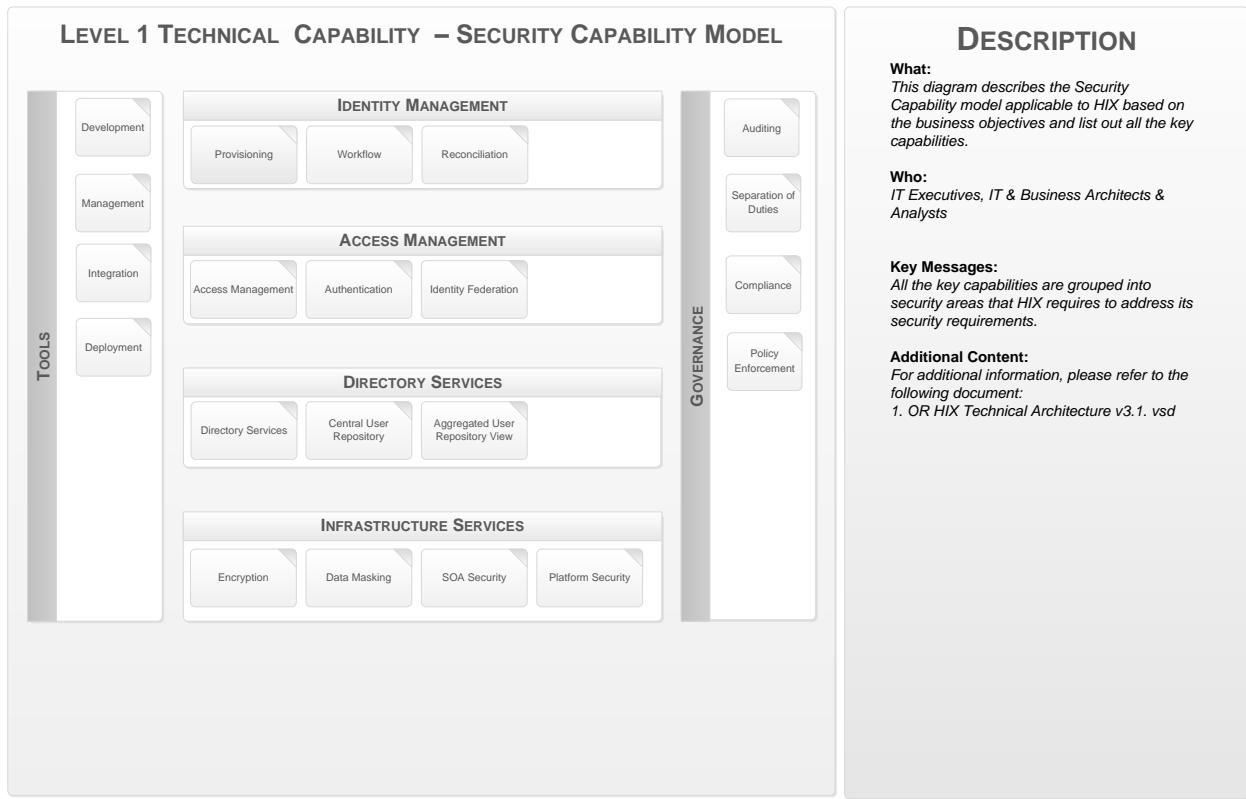
The authentication, authorization and directory services play a common role in the above listed scenarios.

Exhibit 41: Component Architecture



11.4 Identity Management Security Capability Model

Exhibit 42: Identity Management Security Capability Model



Capability Description:

- **Provisioning**

The identity provisioning process at its core is responsible for the creation of users through a proper approval process and granting them with access rights to key applications and processes governed by their qualification within the organization. It is imperative that this process is tightly governed and audited to minimize security threat and address any vulnerability issues to system penetration and abuse. Provisioning further ensures the complete lifecycle of the user accounts from creation to removal when the qualification expires.

Oracle Products that support this capability: Oracle Identity Manager (OIM)

- **Workflow**

Workflow processes add structure to the activities such as creation of user accounts, requests for additional access, removal of user accounts or password resets. They allow ordinary users to initiate provisioning processes that trigger other appropriate process to route through the approval hierarchy. They further assist in propagating changes to other systems and directories.

Oracle Products that support this capability: Oracle Identity Manager (OIM)

- **Reconciliation**

Primary objective of the Reconciliation process is to ensure consistency between the provisioning system and the access system and identifying directly managed or unauthorized accounts provisioned outside the Identity Managed system. It further helps with bulk load activities for on-boarding a new identity store and provides high performance and reliability to a very large user population base.

Oracle Products that support this capability: Oracle Identity Manager (OIM)

- **Authentication**

Primary objective of an Authentication process is to verify a user or a consumer against his claim of access. This is accomplished through a 'Username' and 'Password' unique to the user. The mode of authentication and stringency varies from standalone computing resources and application to Perimeter Security Solutions that provide Enterprise wide authentication.

Oracle Products that support this capability: Oracle Access Manager (OAM) and Oracle Entitlement Server (OES)

- **Access Management**

Access Management is the authorization piece of access control. This is the process that defines the access policy otherwise known as PAP (Policy Access Point). When a consumer tries to access a resource, the access control process checks that the consumer has been authorized to use that resource and is a defined user within the system. The three primary types of access decisions are 'Coarse Grained', 'Fine Grained' and 'Data Field Level' and are used depending on the application resource that needs to be accessed.

Oracle Products that support this capability: Oracle Access Manager (OAM)

- **Identity Federation**

Identity Federation is a process that allows interoperation between entities in different security domains or zones. Further each domain could manage its own set of users, groups, roles and policies and different technologies and security mechanisms. This is accomplished through identity and credential mapping across security domains.

Oracle Products that support this capability: Oracle Identity Federation (OIF)

- **Directory Services**

Directory Services provides identity virtualization, storage and synchronization services for identity data. It secures data with Access Control Instructions (ACIs) that define access rights to the attribute level. Directory Service is a part of Open Systems Interconnection (OSI) initiative that defines common network standards to provide multi-vendor compatibility.

Oracle Products that support this capability: Oracle Directory Service (ODSEE)

- **Central User Repository**

Central User Repository process is based on virtualization of the data through a common LDAP interface without synchronization or duplication. This architecture allows a common repository to store identity data post synchronization with other directories thereby providing a single location for identity data.

Oracle Products that support this capability: Oracle Unified Directory (OUD)

- **Aggregated User Repository View**

Virtual Directory View is a service that allows virtualization of data by providing a common LDAP based interface to access the information with a similar look and feel irrespective of the source of the data. This allows applications to access the data in the look, feel and structure that are accustomed to.

Oracle Products that support this capability: Oracle Virtual Directory (OVD)

- **Governance (Audit, Compliance, Policy, SoD)**

This capability requires a consistency between user provisioning and managed resources through a reconciliation service. It further ensures SoD (Segregation of Duty) and compliance with IT Audit policies during the provisioning process. Further, this capability addresses the complete lifecycle of an account from creation to de-provisioning when no longer needed.

Oracle Products that support this capability: Oracle Identity Manager (OIM), Oracle Audit Vault (OAV), Oracle Data Vault (ODV), Oracle Identity Analytics (OIA)

- **Tools (Development, Management, Integration, and Deployment)**

Tools capability provides the interface(s) to develop, manage, integrate and deploy the identity framework. The administration, development and management consoles are built on industry standard J2EE, JSP compliant and Web based user friendly GUI interfaces that are intuitive in their use and assist with diagnostics, monitoring in addition to the above listed core functionalities.

Oracle Products that support this capability: Oracle Identity Manager (OIM) and Oracle Access Manager (OAM)

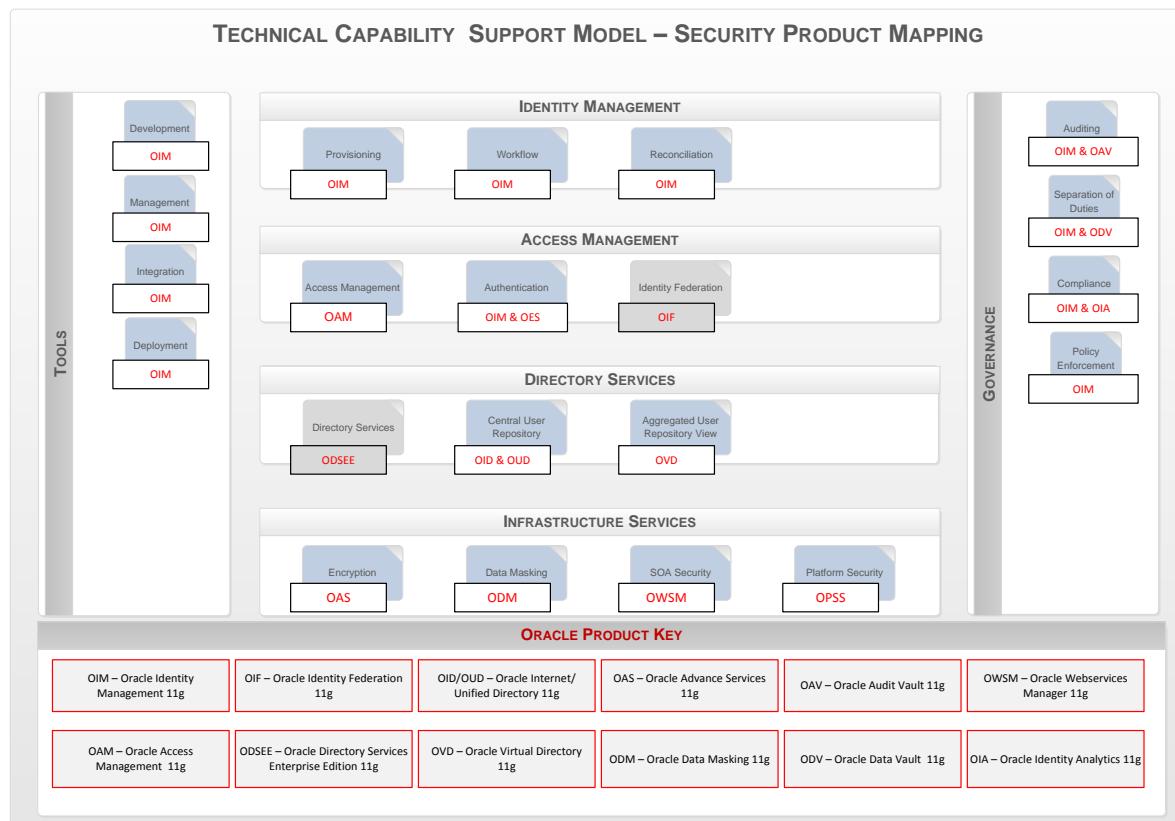
- **Infrastructure (Encryption, Data Masking, SOA Security, Platform Security)**

Infrastructure capability addresses the data encryption in transit, data masking during data at rest, integration with Service Oriented architecture and a common Platform level security. These capabilities ensure the security of data over the entire lifecycle of creation, access and retirement.

Oracle Products that support this capability: Oracle Advanced Services (OAS), Oracle Data Masking (ODM), Oracle Web Services Manager (OWSM), and Oracle Platform Security Services (OPSS)

- **Capabilities mapped to Licensed Oracle Products**

This section illustrates the products and technologies that support the above listed capabilities. These products individually or in a combination are used to establish a complete cohesive security framework.



Summary

Security is an important component of the distributed environments required in HBE. The information needs to be protected not only from malicious hacking but needs to be in compliance with multiple regulatory concerns. A consistent, adaptable, extensible standards based approach used in HBE is the best way to approach the security challenges faced by the Architecture. ORA security describes this

architecture with principles that advocate the use of components and standards that fully identify the capabilities and the products that address them to completion.

11.5 Architecture Principles for IDAM Services

Since there are multiple IDAM products being deployed that provide mutually overlapping services, following architectural principles will be used as a guiding factor to enable services across product suite.

11.5.1 Identity Store

Identity Store acts as the Authoritative data store for various types of user accounts and the roles associated with them. This store is used as a *source of truth* by various applications for user information (aka user profile data) including (but not limited to) user id, password, user account status etc.

The State of Vermont has its employees and contractors in an Active Directory, this data would be loaded onto Oracle Identity Manager (OIM) and provisioned into Oracle Unified Directory (OUD) and OUD is the authoritative Identity Store for ‘Internal Users’., these users are also referred to as Organizational Users. There might be other Lightweight Directory Access Protocols (LDAP) directory and Active Directory instances in use across the State of Vermont.

Similarly, Oracle Unified Directory (OUD) will be designated as an authoritative Identity Store for ‘External Users’.

These two identity stores will persist the identity and state of the identity within them

Oracle Virtual Directory (OVD) will be then used to aggregate these two physical identity stores and hence it will be designated as the Authoritative Source for all user identities.

Applications will connect to OVD to perform basic authentication, read user profile data, determine user account status and also provide LDAP Group Membership information that may translate into User Authorizations.

Oracle Fusion Middleware uses a feature called “LDAPSsync” (for LDAP Synchronization). The OIM communicates with the OID/LDAP data stores via the OVD component. Enabling LDAPSsync is required for integration between OAM, OAAM, and OIM. When all three products are integrated via LDAPSsync, all will be working off the same directory with which OIM is synchronizing. When using Oracle Unified Directory, replication is performed using its built-in “Replication Gateway”.

11.5.2 External User Registration

There will be two types of External User Registration – Basic and Privileged. Basic registration will include both Profile registration and Access Registration. User Registration will leverage Portal based UI integrated tightly with backed OIM/OAAM Engines.

Basic user registration is for ordinary external users (like individuals, employees etc. not requiring Identity proofing) and will only include basic attributes and generating userid, password, security passphrase and challenge question/answers. This type of registration will be performed using OIM and OAAM as the registration engine and it will create an external user in OAAM, OIM and OUD. This type of user is a non-identity proofed user. OIM will be used to create the user and OAM will be used authenticate and authorize user access.

Privileged user registration is for all other assurance Level users. This will be invoked when the user needs to undergo Identity Proofing. This registration will use OIM as the Identity Management Engine. It will also involve any type of user verification/validation along with identity proofing that will leverage SOA services. On successful completion of Identity Proofing, the user will be tagged as Identity Proofed user in OIM and in OUD.

Before a user can be created/updated as a Privileged user, he/she must have a Basic Account and should have registered via OIM/OAAM registration engine.

11.5.3 Identity Lifecycle Management and Synchronization

Identity Lifecycle Management includes CUD operations (Create, Update, and Delete) operations on a user identity. This also includes managing any user information (or user profile) attributes.

Account Lifecycle Management includes CUD (Create, Update, and Delete) operations on a user's account. This also includes managing account specific attributes in the target systems.

A user will have one identity while he/she can have many accounts (like OUD account, AD account, Siebel account, Web Center account etc.) and this user may have different roles/entitlements within these target systems.

User Roles would be set based on the role chosen by the user as well as Roles and few other attributes have to be updated from the Liferay database using reconciliation.

OIM will be used as a central Identity and Account Lifecycle Management system.

All the identity information and access changes will be audited and stored for future reporting purposes within OIM.

OIM will also update the target applications (Siebel, OUD etc.) for any user attribute updates on a real time basis.

11.5.4 User-Entitlement Lifecycle Management

Users can be granted/revoked Roles/Entitlements in the target applications (like Siebel, Liferay etc.) that give a user appropriate authorization to perform their day-to-day functions. These entitlements are generally fine-grained roles that are application specific and can be granted to a user.

Even though these entitlements are application specific and created/deleted in the target system and user's association to these entitlements are also stored in that target system, however, granting of these entitlements (and hence revocation of these entitlements from the user) are centrally managed within OIM system. This provides a one-stop-shop for users to request for entitlements and also the centralized OIM system audits and tracks user's association with entitlements for future audit reporting purposes. This also provides additional benefits for performing Segregation-of-Duties (SoD) checks if they need to be invoked before a user is granted any additional entitlement.

OIM will be used as the Entitlement Requesting and Provisioning engine to grant (and revoke) application specific entitlement for a user

11.5.5 Authentication

Both Oracle Access Manager and Oracle Adaptive Access Manager provide authentication (login) capabilities. Due to the sensitive nature of services provided by VT HBE portal, Oracle Adaptive Access Manager (OAAM) will be used to provide Login Services.

OAAM will be the Login/Authentication Service Provider while OAM will be used to perform Web Single Sign-On across various applications and also to manage user's logged-in session.

11.5.6 Coarse Grained Authorization

Coarse Grained Authorization is a type of authorization granted to a user at an application level. That is, if a user can access a certain application (or a page) within that application or not (as long as page can be differentiated at a URL level). OAM policies are applied at URL level and hence authorization can be granted to a user against these policies.

OAM will be used to perform coarse grained authorization.

User's association to these coarse grained authorizations will be managed through OIM.

11.5.7 Fine Grained Authorization

Fine Grained Authorization is a type of authorization granted to a user at an application function level. That is, if a user can perform a function or not within that application or if he can perform a read or update operation on an attribute or not within the application. Such fine grained authorizations are very application and business rule specific, so these will be managed within the business application itself.

VT HBE portal will leverage the Liferay portal to manage these fine grained authorizations and user entitlements.

11.5.8 Password Management

OIM and OAAM both provide Self Service Password Management capabilities. Web Password Management is achieved through a feature called LDAPSsync, which integrates OAM, OIM, and OAAM. Specific Oracle Fusion Middleware user password attributes are stored in a user's identity.

OIM and OAAM will be used to provide Self Service Password Reset and Password Change capabilities.

11.5.9 Identity Audit and Attestation

OIM will be used to provide Identity Audit capabilities.

Attestation (or Re-Certification) is a process by which user's accounts and entitlements are certified on a periodic basis by some designated auditor. Auditor reviews and marks the account/entitlement for a user as still required or non-required ones. The non-required account/entitlement is then revoked from the user.

OIM will be used to provide attestation capabilities.

11.5.10 Reporting

All products in Oracle's IAM suite (OIM, OAM, and OAAM) provide out-of-box Oracle Business Intelligence (Oracle BI) Publisher based reports for a lot of identity and access related functions.

Oracle BI Publisher based reporting capabilities will be enabled for OIM, OAM and OAAM systems. An instance of Oracle BI Publisher is installed exclusively for Oracle Identity Management.

11.6 Performance Software Architecture

Software used by the Vermont Health Benefit Exchange goes through strict evaluation for performance. In addition to this evaluation, CGI also employs the following performance tools into its architecture:

- Load Balancing to help ensure that performance is continuously at a high level on the Application and Web Servers.
- Server clustering via Rack Clusters to help ensure that the database servers will deliver high performance.
- Performance Monitoring software is included in the Service Layer of the VT HBE Solution.

12 Records Management

The Records Management Plan ("HBE RMP") provides the records management strategy and approach for the CCIIO Federal Exchange project, including the scope, goals, and objectives. The RMP details how the records will be organized, maintained, and monitored. It further details the methodology for records management that will be employed during the entire project life cycle. The information in the RMP provides the basis for communication and common understanding among project team members and other stakeholders. The RMP forms the basis for an agreement between all project teams and stakeholders associated with the VT HBE project. At a minimum, the RMP will include the following elements:

- Overview
- Accountability
- Integrity
- Protection
- Compliance
- Availability
- Retention
- Disposition
- Transparency

The RMP is to be established under guidance from the CMS Records Management Officer (Office of Strategic Operations and Regulatory Affairs (OSORA)/Issuances and Records Management Group) so that the RMP is in line with Federal records management regulations as well as CMS policies and procedures.

12.1 Internal Communications Architecture

The Vermont Health Benefits Exchange (VT-HBE) network architecture describes the layout of the CGI Federal Cloud network, consisting of the hardware, software, connectivity, communication protocols and mode of transmission (for example, as wired or wireless. NIST 800-53 recognized communication protocols used in our technical solution provide the security controls and management platform and are essential to maintaining the security posture of VT-HBE depicts the VT-HBE network architecture using a multi-zone approach to maximize protection of information assets and sustainability of the final solution.

The CGI Cloud capability enables the innovative use of information using an infrastructure as a service (IaaS), platform as a service (PaaS), and software as a service (SaaS) model. VT-HBE provides consumer users with a stable application and Web hosting environments for development, testing, staging, production, and Disaster Recovery in an on-demand, self-service cloud setting. Cloud users access the cloud system through the various portals to perform VT-HBE services. The cloud products and services are instantiated as virtual servers, bandwidth, and storage within the cloud. The cloud itself rests on a layer of virtualization software that separates the virtual devices from the underlying physical servers, bandwidth, and storage.

Diagrams

Exhibit 43: Product Environments and Network Zones: Web Server

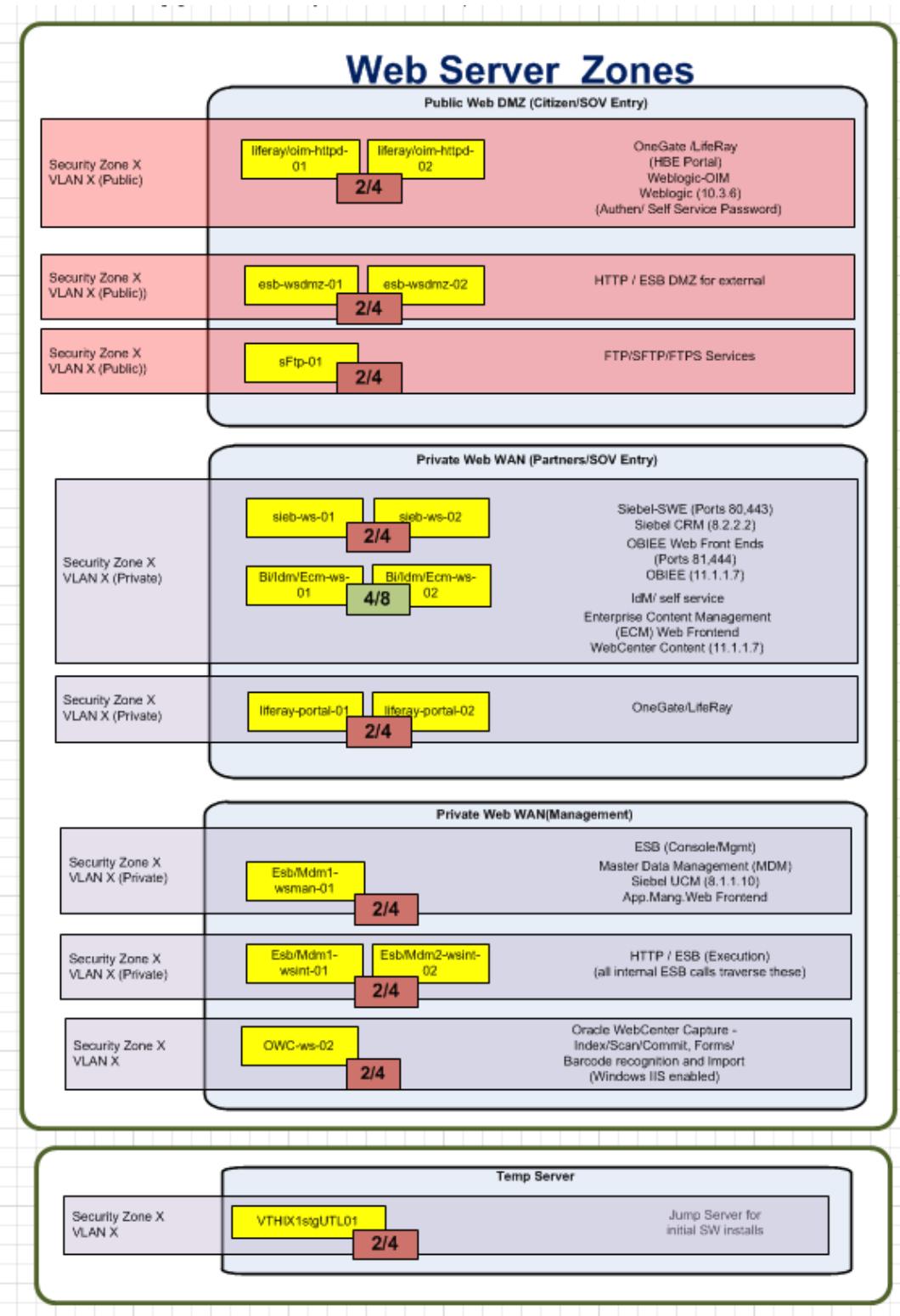


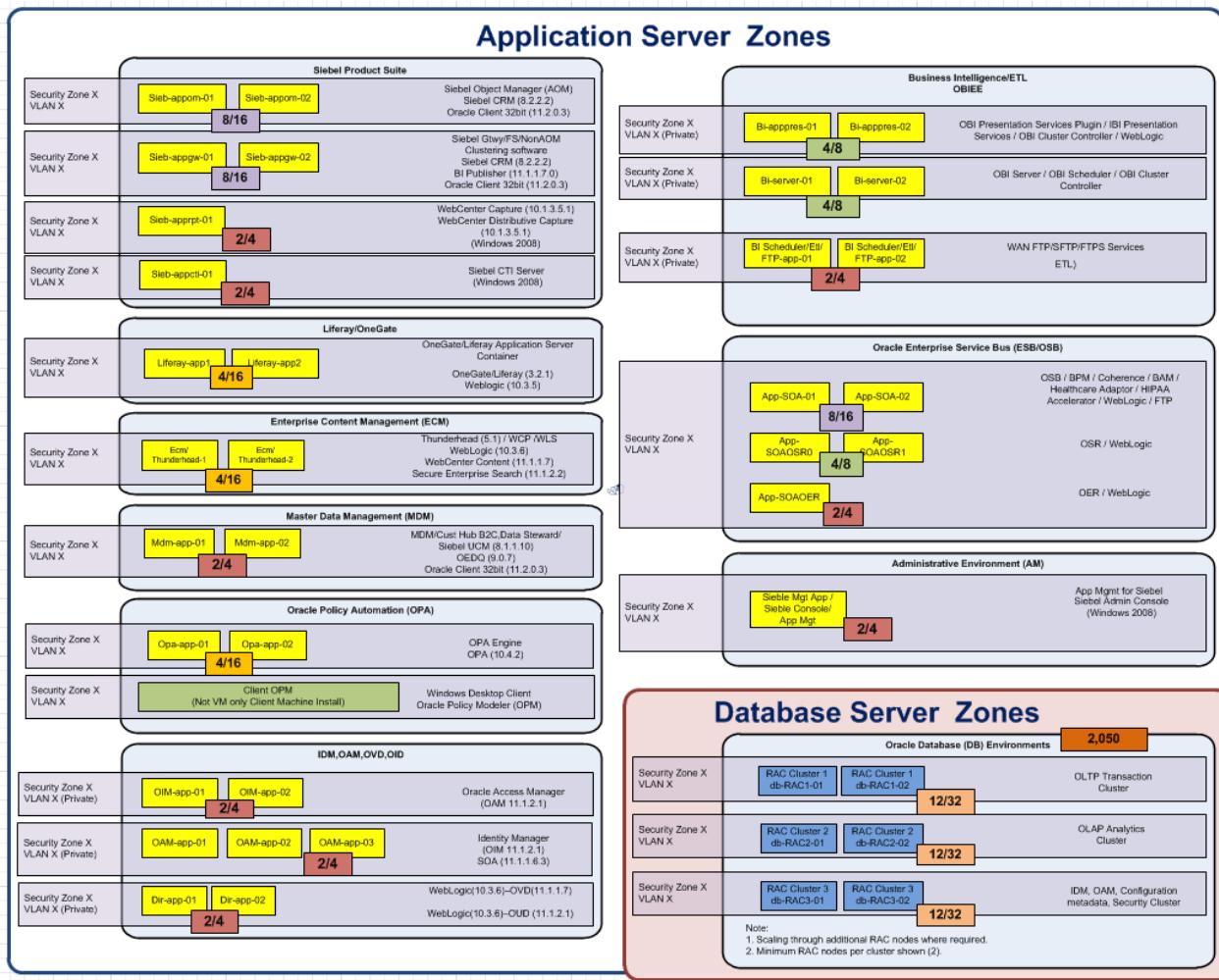
Exhibit 44: Production Environments and Network Zones: Application Servers


Exhibit 45: Non-production Environments and Network Zones: Web Servers

Web Server Zones

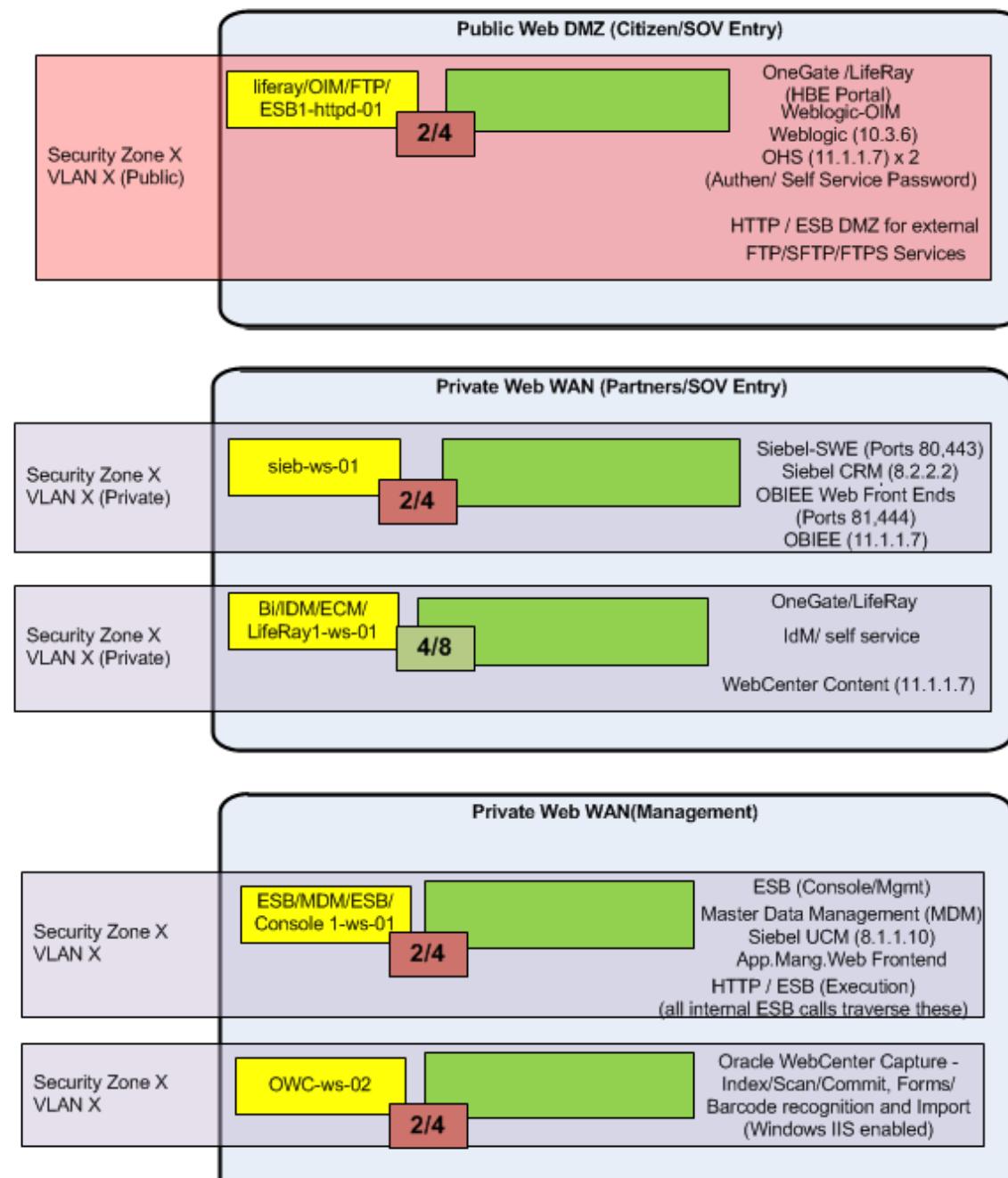
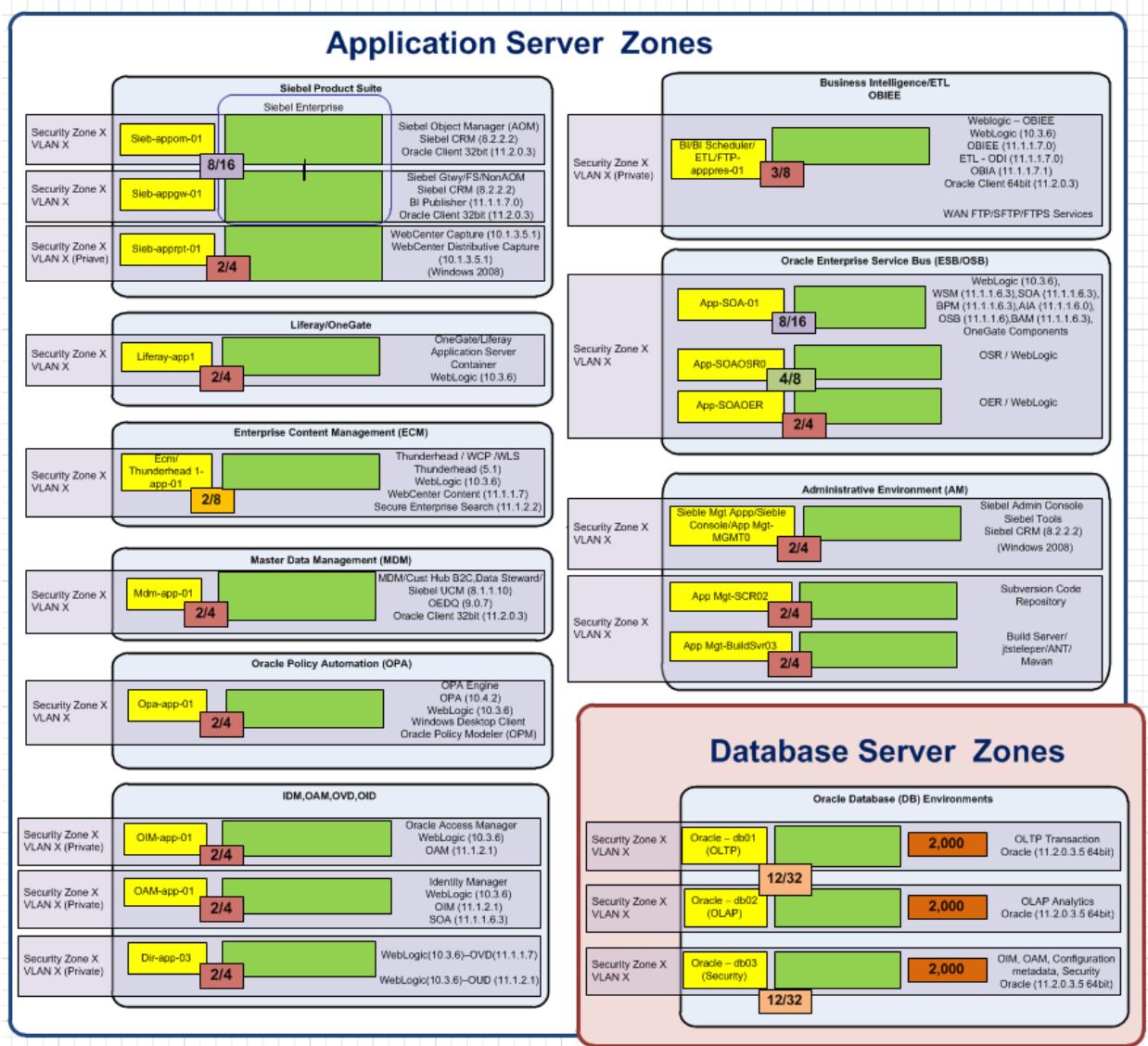


Exhibit 46: Non-production Environments and Network Zones: Application Servers

Exhibit 47: Diagram Legend

2/4 CGI VM 2vCPU w/4GB RAM

4/8 CGI VM 4vCPU w/8GB RAM

8/16 CGI VM 8vCPU w/16GB RAM

12/32 CGI VM 12vCPU w/32GB RAM

SAN GB CGI Storage in GB (database & Apps/ COTS)

12.2 System Architecture Diagram

For more information, see the System Architecture section.

13 Data Design

The Vermont Health Benefit Exchange data design is based on industry standard principles and guidelines that focus on storing and maintaining quality and complete information in a highly efficient and secured way. Summarized below are some of the data design principles that have been applied to the VT HBE databases:

- **Operational requirements**

Operational requirements are needed to be met by a database in order to effectively support an application when operational. Though it typically may be expected that operational requirements are automatically met by a DBMS, in fact it is not so in most cases: To be met a substantial work of design and tuning is typically needed. This is typically done by specific instructions/operations through special database user interfaces and tools, and thus may be viewed as secondary functional requirements (which are not less in important than the primary requirements).

- **Availability**

A database should maintain needed levels of availability, that is, the database needs to be available in a way that a user's action does not need to wait beyond a certain time range before starting the execution upon the database. Availability also relates to failure and recovery from it. Upon failure and during recovery normal availability changes and special measures are needed to satisfy availability requirements.

- **Isolation between users**

When multiple users access the database concurrently the actions of a user should be uninterrupted and unaffected by actions of other users. These concurrent actions should maintain the database's consistency (that is, keep the database from corruption).

- **Recovery from failure and disaster**

All computer systems, including DBMSs, are prone to failures for many reasons (both software and hardware related). Failures typically corrupt the database, often to the extent that it is impossible to repair it without taking special measures. The DBMS should provide automatic recovery from failure procedures that repair the database and return it to a well-defined state.

- **Data independence**

Data independence pertains to a database's life cycle. It strongly impacts the convenience and cost of maintaining an application and its database, and has been the major motivation for the emergence and success of the Relational model, as well as the convergence to common database architecture. In general the term "data independence" means that changes in the database's structure do not require changes in its application's computer programs, and that changes in the database at a certain architectural level do not affect the database's levels above. Data independence is achieved to a great extent in a contemporary DBMS, but it is not completely attainable, and achieved at different degrees for different types of database structural changes.

- **Security**

Database security concerns the use of a broad range of information security controls to protect databases (potentially including the data, the database applications or stored functions, the database systems, the database servers, and the associated network links) against compromises of their confidentiality, integrity, and availability. It involves various types or categories of controls, such as technical, procedural/administrative, and physical.

Many layers and types of information security control are appropriate to databases, including:

- Access control
- Auditing
- Authentication
- Encryption
- Integrity controls
- Backups
- Application security
- Scalability

Scalability is the capability to manage resources to yield a linear (ideally) increase in service capacity. The key characteristic of a scalable database is that additional load only requires additional resources rather than extensive modification of the database itself.

13.1 Data Objects and Resultant Data Structures

The following main categories of data will be collected, and stored or transferred from outside sources:

- Employers – Employer data, Employer, and Employee plan data
- Account – ID and Passwords for the public-facing component of the Health Benefit Exchange and knowledge based challenge questions, answer choices, and correct answers
- Household – Relationships between household members
- Person – General person information such as demographics, citizenship, and contact details
- Income – Income information about a person
- Expenses – Expense information about a person
- Insurance – Current insurance information
- Premium – Billing, Premium Pay, Premium Pay history, Pay profile
- Plan info – Information related to active/non-active individual benefit programs

Note: The above is a high level list of data categories and is not all inclusive at this point in time.

The data to be gathered for the purpose of the VT-HBE project will be mutually exclusive data, numeric, relative and absolute measure count. Hence, the data types will be nominal (belonging to a definable category), ordinal (the values can be counted), primitive, and measure (relative values).

13.2 File and Database Structures

This section elaborates the OneGate data model, and includes the entity relationship diagram for the OneGate Portal Database.

For further information on databases and file structure within the Vermont Health Benefit Exchange, please refer to deliverable *D-19 Database Design Document*.

13.2.1 OneGate Data Model

The OneGate Portal Database stores a variety of data types, including glossary terms, seeded information for sample external verification interfaces, employer information, and application information used by the OneGate portal.

The Entity Relationship tables in the following diagrams contain the table schema, primary key, fields, and field types for this database. The Entity Relationship diagrams depict entities and their relationships within a functional component.

13.2.2 HBEEMPLOYER Schema

The HBEEMPLOYER schema captures employer and employee information during the application and plan selection process.

HBEEMPLOYER.EMPLOYEEPLAN	
P *	EMPLOYEE_PLANID NUMBER (19)
	EMPID NUMBER (19)
	EMPLOYEEID VARCHAR2 (255 CHAR)
	EMPLOYERID NUMBER (19)
	PLANID VARCHAR2 (255 CHAR)
	STR_EMPLOYERID VARCHAR2 (255 CHAR)
	CREATED_BY VARCHAR2 (255 CHAR)
	CREATED_DATE TIMESTAMP
	LAST_MODIFIED_BY VARCHAR2 (255 CHAR)
	LAST_MODIFIED_DATE TIMESTAMP
 EMPLOYEEPLAN_PK (EMPLOYEE_PLANID)	
 IDX_EMPLOYEEPLAN (EMPLOYEE_PLANID)	

HBEEMPLOYER.EMPLOYER_EMPLOYEE	
P *	EMPLOYER_EMPLOYEEID NUMBER (19)
	EMPLOYEEID_FK VARCHAR2 (255 CHAR)
	EMPLOYERIDNUMBER_FK VARCHAR2 (255 CHAR)
	CREATED_BY VARCHAR2 (255 CHAR)
	CREATED_DATE TIMESTAMP
	LAST_MODIFIED_BY VARCHAR2 (255 CHAR)
	LAST_MODIFIED_DATE TIMESTAMP
 EMPLOYER_EMPLOYEE_PK (EMPLOYER_EMPLOYEEID)	
 IDX_EMPLOYEREMPLOYEE (EMPLOYER_EMPLOYEEID)	

HBEEMPLOYER.EMPLOYER_PLAN	
P *	EMPLOYER_PLANID NUMBER (19)
ARCHIVE	NUMBER (1)
EMPLOYERIDNUMBER_FK	NUMBER (19)
INSURANCE_PLANID_FK	VARCHAR2 (255 CHAR)
EMP_CONTRIB_AMT	VARCHAR2 (255 CHAR)
EMPLOYERID	VARCHAR2 (255 CHAR)
CREATED_BY	VARCHAR2 (255 CHAR)
CREATED_DATE	TIMESTAMP
LAST_MODIFIED_BY	VARCHAR2 (255 CHAR)
LAST_MODIFIED_DATE	TIMESTAMP
EMPLOYER_PLAN_PK (EMPLOYER_PLANID)	
IDX_EMPLOYERPLAN (EMPLOYER_PLANID)	

HBEEMPLOYER.SHOPINSURANCEPLAN	
P *	PLANID NUMBER (19)
NCQARATING	VARCHAR2 (255 CHAR)
OOPADULT_ROUTINE_PHYSICAL	VARCHAR2 (255 CHAR)
OOPER	VARCHAR2 (255 CHAR)
OOPFAMILY_TOTAL	VARCHAR2 (255 CHAR)
OOPINPATIENT	VARCHAR2 (255 CHAR)
OOPOUTPATIENT	VARCHAR2 (255 CHAR)
OOPPCP	VARCHAR2 (255 CHAR)
OOPPER_PERSON	VARCHAR2 (255 CHAR)
OOPPRESCRIPTION_DRUGS	VARCHAR2 (255 CHAR)
OOPROUTINE_GYN_EXAM	VARCHAR2 (255 CHAR)
OOPSPECIALIST	VARCHAR2 (255 CHAR)
OOPWEL_CHILD_CENTRE	VARCHAR2 (255 CHAR)
ANNUAL_BENEFIT_MAXIMUM	VARCHAR2 (255 CHAR)
ANNUAL_DE_FAMILY_TOTAL	VARCHAR2 (255 CHAR)
ANNUALDED_PER_PERSON	VARCHAR2 (255 CHAR)
BENEFITS_PACKAGE	VARCHAR2 (255 CHAR)
CO_PAYER	VARCHAR2 (255 CHAR)
CO_PAYOV	VARCHAR2 (255 CHAR)
CO_PAYRX	VARCHAR2 (255 CHAR)
COST	VARCHAR2 (255 CHAR)
DEDUCTIBLE	VARCHAR2 (255 CHAR)
EST_ANNUAL_EXPENSE	VARCHAR2 (255 CHAR)
ESTIMATEDOOP	VARCHAR2 (255 CHAR)
HEALTH_INSURANCE_COMP	VARCHAR2 (255 CHAR)
IMAGEURL	VARCHAR2 (255 CHAR)
INCLUDES_HOSP	VARCHAR2 (255 CHAR)
INCLUDESPCP	VARCHAR2 (255 CHAR)
INSURANCE_CARRIER	VARCHAR2 (255 CHAR)
INSURANCE_PLANID	VARCHAR2 (255 CHAR)
MONTHLY_PREMIUM	VARCHAR2 (255 CHAR)
PLAN_NAME	VARCHAR2 (255 CHAR)
PLAN_TYPE	VARCHAR2 (255 CHAR)
PROVIDERS	VARCHAR2 (255 CHAR)
RATING	VARCHAR2 (255 CHAR)
REQUIRE_REFERRAL	VARCHAR2 (255 CHAR)
ROUTINE_ADULT_PHYSICAL	VARCHAR2 (255 CHAR)
ROUTINE_GYN	VARCHAR2 (255 CHAR)
ROUTINE_SUB_TO_ANNUAL_DED	VARCHAR2 (255 CHAR)
ROUTINE_WEL_CHILD_CARE	VARCHAR2 (255 CHAR)
SAVE	VARCHAR2 (255 CHAR)
CREATED_BY	VARCHAR2 (255 CHAR)
CREATED_DATE	TIMESTAMP
LAST_MODIFIED_BY	VARCHAR2 (255 CHAR)
LAST_MODIFIED_DATE	TIMESTAMP
SHOPINSURANCEPLAN_PK (PLANID)	

HBEEMPLOYER.EMPLOYEESHOP	
P	* EMPID
	NUMBER (19)
	SSN
	VARCHAR2 (255 CHAR)
	DATE_OF_BIRTH
	TIMESTAMP
	EMPLOYEEID
	VARCHAR2 (255 CHAR)
	EMPLOYERID
	VARCHAR2 (255 CHAR)
	FIRST_NAME
	VARCHAR2 (255 CHAR)
	GENDER
	VARCHAR2 (255 CHAR)
	LAST_NAME
	VARCHAR2 (255 CHAR)
F	EMPLOYERIDNUMBER
	NUMBER (19)
	EMAIL
	VARCHAR2 (255 CHAR)
	STATUS
	VARCHAR2 (255 CHAR)
	ARCHIVED
	VARCHAR2 (255 CHAR)
	EMPLOYEE_TYPE
	VARCHAR2 (255 CHAR)
	CREATED_BY
	VARCHAR2 (255 CHAR)
	CREATED_DATE
	TIMESTAMP
	LAST_MODIFIED_BY
	VARCHAR2 (255 CHAR)
	LAST_MODIFIED_DATE
	TIMESTAMP
EMPLOYEESHOP_PK (EMPID)	

↓

HBEEMPLOYER.EMPLOYER	
P	* EMPLOYERIDNUMBER
	NUMBER (19)
	COMPANY_ADDRESS_LINE1
	VARCHAR2 (255 CHAR)
	COMPANY_ADDRESS_LINE2
	VARCHAR2 (255 CHAR)
	COMPANY_CITY
	VARCHAR2 (255 CHAR)
	COMPANY_EMAIL
	VARCHAR2 (255 CHAR)
	COMPANY_FAX
	VARCHAR2 (255 CHAR)
	COMPANY_NAME
	VARCHAR2 (255 CHAR)
	COMPANY_PHONE_NUMBER
	VARCHAR2 (255 CHAR)
	COMPANY_STATE
	VARCHAR2 (255 CHAR)
	COMPANY_ZIPCODE
	VARCHAR2 (255 CHAR)
	CONTACT_FIRST_NAME
	VARCHAR2 (255 CHAR)
	CONTACT_LAST_NAME
	VARCHAR2 (255 CHAR)
	EMPLOYERID
	VARCHAR2 (255 CHAR)
	CONTACT_PHONE_NUMBER
	VARCHAR2 (255 CHAR)
	EIN
	VARCHAR2 (255 CHAR)
	CONTRIB_AMT
	VARCHAR2 (255 CHAR)
	BUSINESS_TYPE
	VARCHAR2 (255 CHAR)
	CONTRIB_METHOD
	VARCHAR2 (255 CHAR)
	DATE_OF_FILING
	TIMESTAMP
	EMPLOYER_REGISTRATION_DEADLINE
	TIMESTAMP
	LOGIN
	VARCHAR2 (255 CHAR)
	NUMBER_OFEMPLOYEES
	VARCHAR2 (255 CHAR)
	PERCENTAGE_TAX_CREDIT
	VARCHAR2 (255 CHAR)
	PLAN_RANGE
	VARCHAR2 (255 CHAR)
	PLAN_TIER_COVERAGE
	VARCHAR2 (255 CHAR)
	CREATED_BY
	VARCHAR2 (255 CHAR)
	CREATED_DATE
	TIMESTAMP
	LAST_MODIFIED_BY
	VARCHAR2 (255 CHAR)
	LAST_MODIFIED_DATE
	TIMESTAMP
EMPLOYER_PK (EMPLOYERIDNUMBER)	

↓

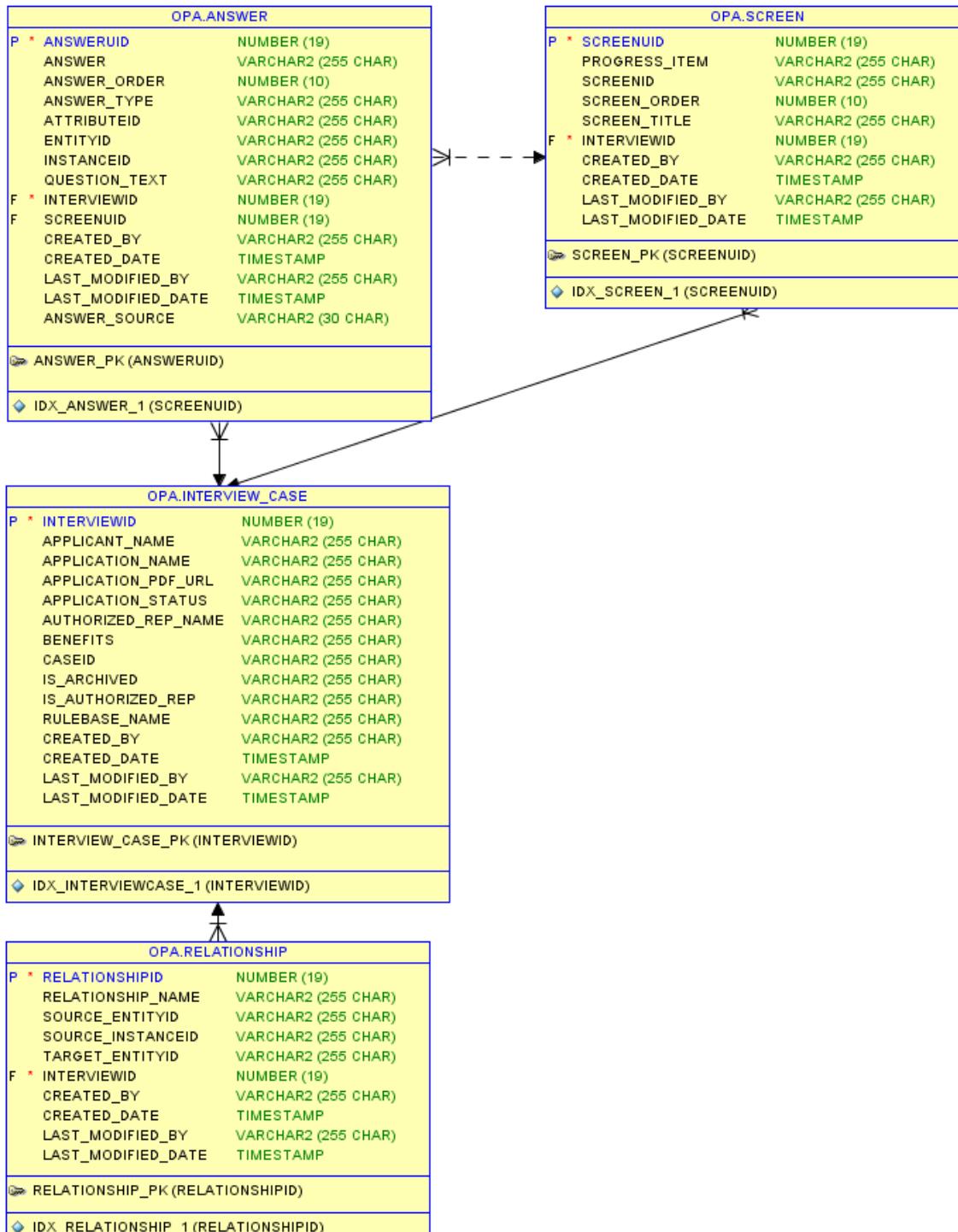
13.2.3 OGAUTH Schema

The OGAUTH schema provides linkage between the portal user account and the case management master case number.

OGAUTH.WEBACCESS	
P *	WEB_ACCESSUID NUMBER (19)
CASEID	VARCHAR2 (255 CHAR)
CREATED_BY	VARCHAR2 (255 CHAR)
CREATED_DATE	TIMESTAMP
IS_WEB_ACCESSIBLE	VARCHAR2 (255 CHAR)
LAST_MODIFIED_BY	VARCHAR2 (255 CHAR)
LAST_MODIFIED_DATE	TIMESTAMP
PORTAL_USERNAME	VARCHAR2 (255 CHAR)
 WEBACCESS_PK (WEB_ACCESSUID)	
 IDX_WEBACCESS (WEB_ACCESSUID)	

13.2.4 OPA Schema

The OPA schema captures information that users enter during the application process. The purpose of the OPA schema is to store incomplete applications.



13.3 Database Management System Files

Refer to deliverable *D-19 Database Design Document* for information about the Database Management System files.

13.4 Non-Database Management System Files

Refer to deliverable *D-19 Database Design Document* and *D-20 Data Management Plan* for information about the Non-Database Management System files.

14 User and Machine Readable Interface

14.1 Inputs

Exhibit 48: User and Machine Readable Inputs

Record Content	Format	Input Method	Source
Single Streamlined Application (SSAp)	Paper	Manual completion of paper form	Applicant (individual or small employer)
	Image of paper (above)	Scanner	Applicant
	Electronic	Manual input to web page	Applicant, Broker, Service Rep
Enrollment Application	Electronic	From SSAp	See above
Eligibility determination – Medicaid, use of Exchange	Electronic	System Interface System determination	CMS, Exchange
Official document used to verify SSAp data and/or eligibility	Paper	Scanner (original returned to supplier)	Applicant
	Electronic	System upload	Applicant or broker
Enrollment in QHP or other disposition by carrier or Exchange	Electronic	System Interface System determination	Carrier Exchange
Correspondence – Outbound, including Notices and Notifications	Paper (sent to recipient)	Electronic	Exchange System
	Electronic (email)	Electronic	Exchange System
Evidence or suspicion of Fraud, Waste, Abuse (FWA)	Electronic or paper	Personal computer or Exchange system	Exchange staff, other authorized sources
Eligibility determination – APTC, CSR	Electronic	System Interface	Federal Data Services Hub (FDSH)

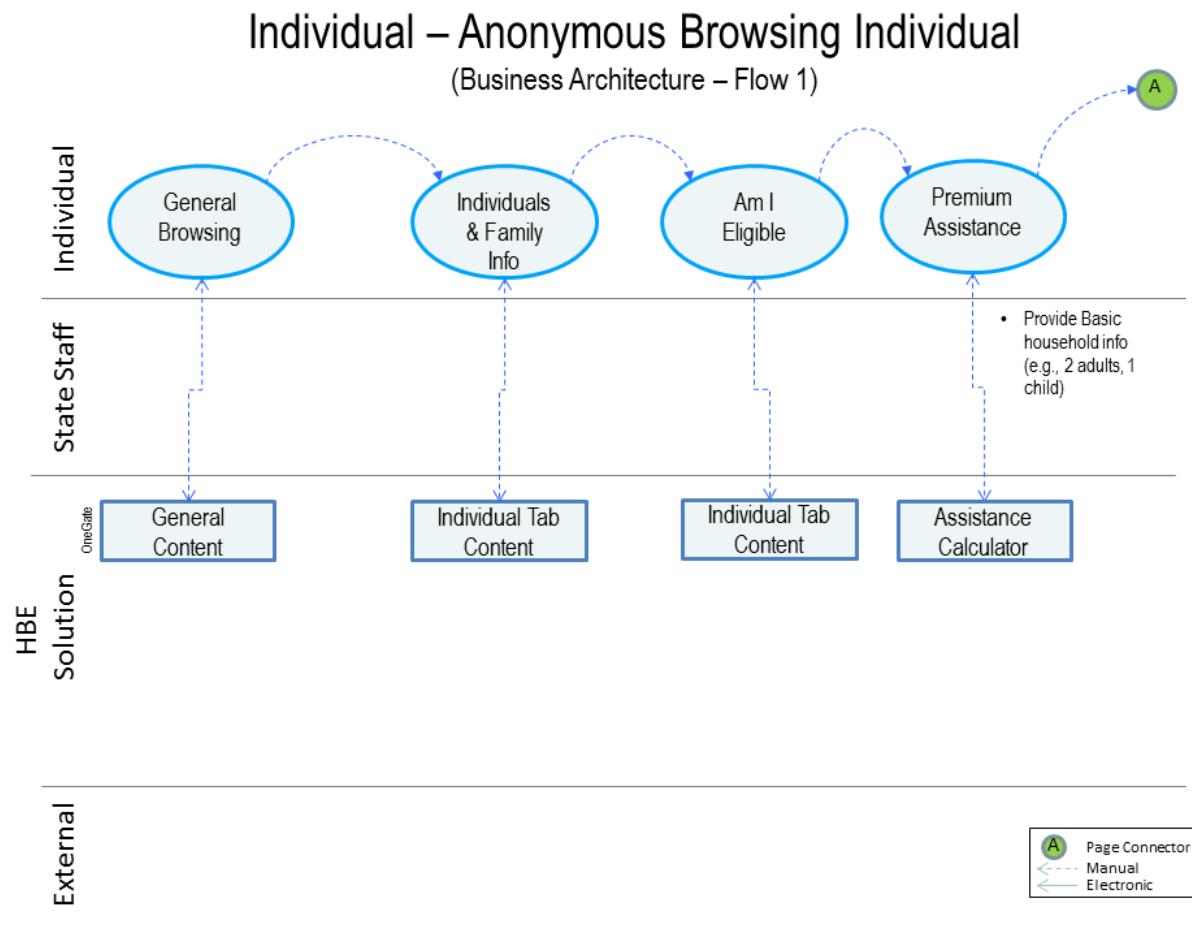
Record Content	Format	Input Method	Source
Submission of Initial Payment by Individual	Electronic	Manual input to web page	Individual applicant
Monthly Payment by Employer	Electronic – CR/DR card, ACH or check image	Manual input to web page	Small Business applicant – employer
Correspondence – Inbound, other than general inquiries	Paper	Scanner	Account holder
	Electronic	Email or Exchange web page	
Service-center incidents (calls or emails)	Electronic	Service Center manual input and incident recording, or email	Exchange CRM
Invoice to carrier or employer	PDF (paper or electronic medium)	Electronic	Exchange System
Reconciliation of invoice and payment	Electronic	System interface, electronic and manual entry into Exchange system	Exchange system, employer system, carrier system
Appeal	Electronic	Manual input to web page or Service Center manual input and incident recording	Applicant or broker
Complaint	Electronic	Manual input to web page or Service Center manual input and incident recording	Applicant or broker
General Inquiries, telephonic	Electronic	Recording of calls to Service Center	Telephone calls
General Inquiries, data	Electronic	Email or Exchange web page	Account holder
General Inquiries, paper	Paper	Scanner	Account holder
Stakeholder feedback	Electronic	Manual input to web page or Service Center manual input and incident recording	Any external stakeholder
Login credentials	Electronic	Manual input to web page	System user
QHP definition	Electronic	System Interface	SERFF
Provider Directory	Electronic	System Interface	Vendor
Federal Tax Information	Electronic	System Interface	Federal Data Services Hub (FDSH)

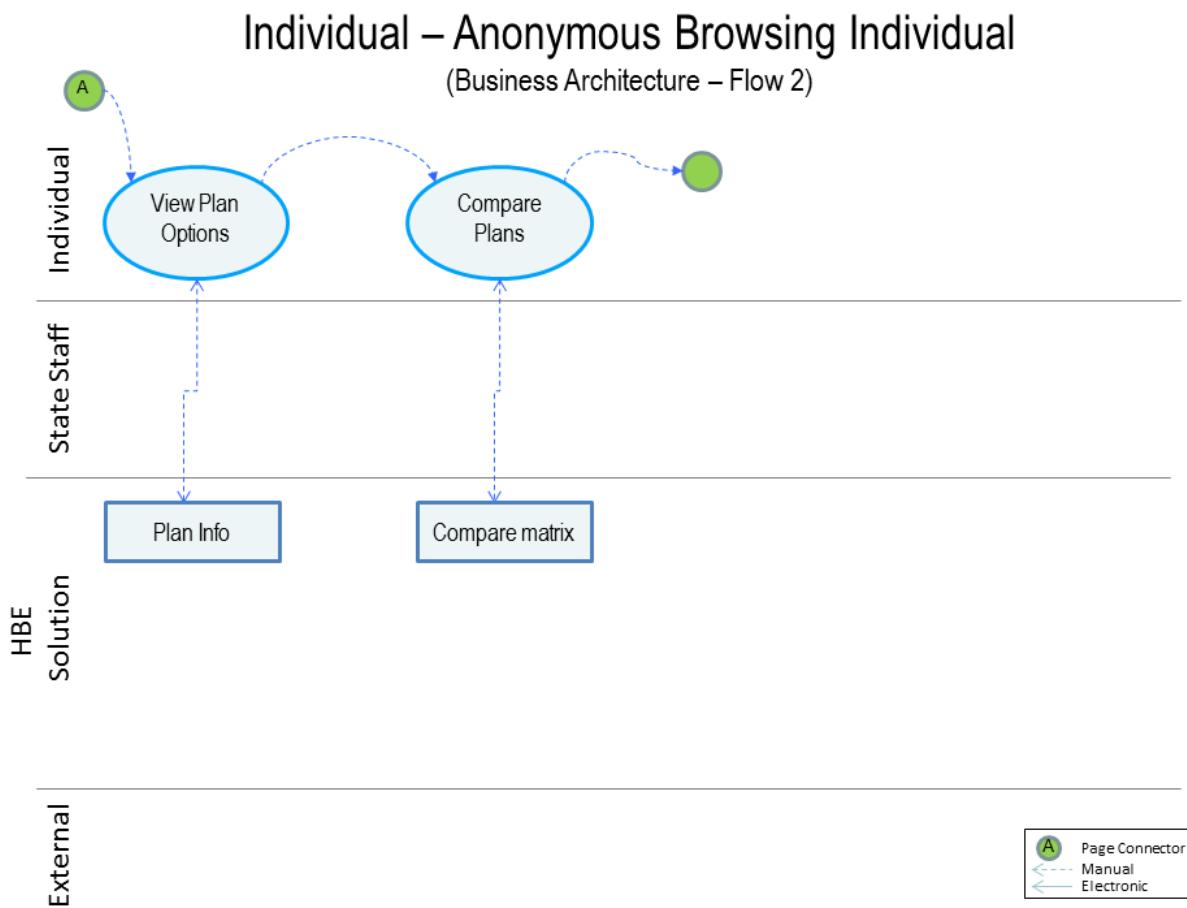
14.2 Outputs

The high-level operational scenarios in the Operational Scenarios section provide an overview of how data will flow through the VT HBE solution.

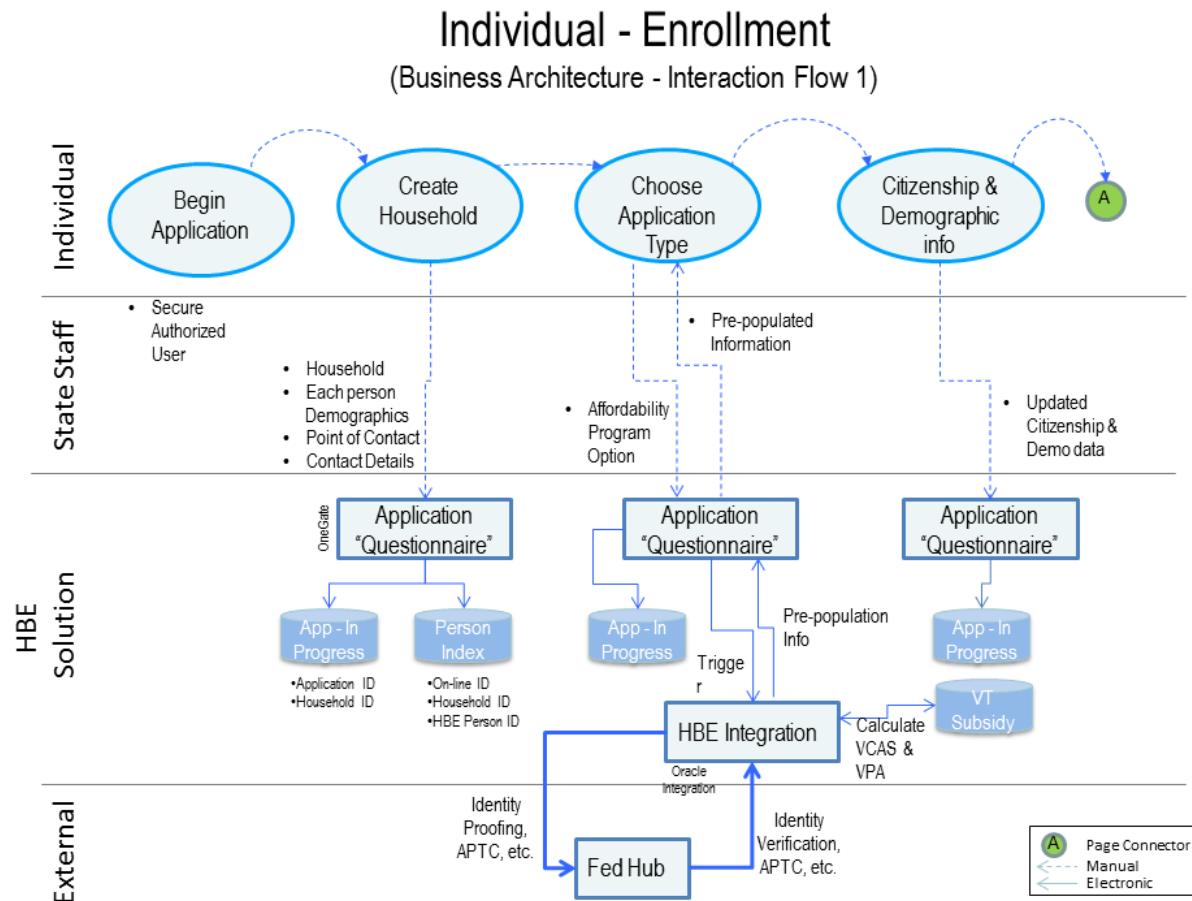
15 Operational Scenarios

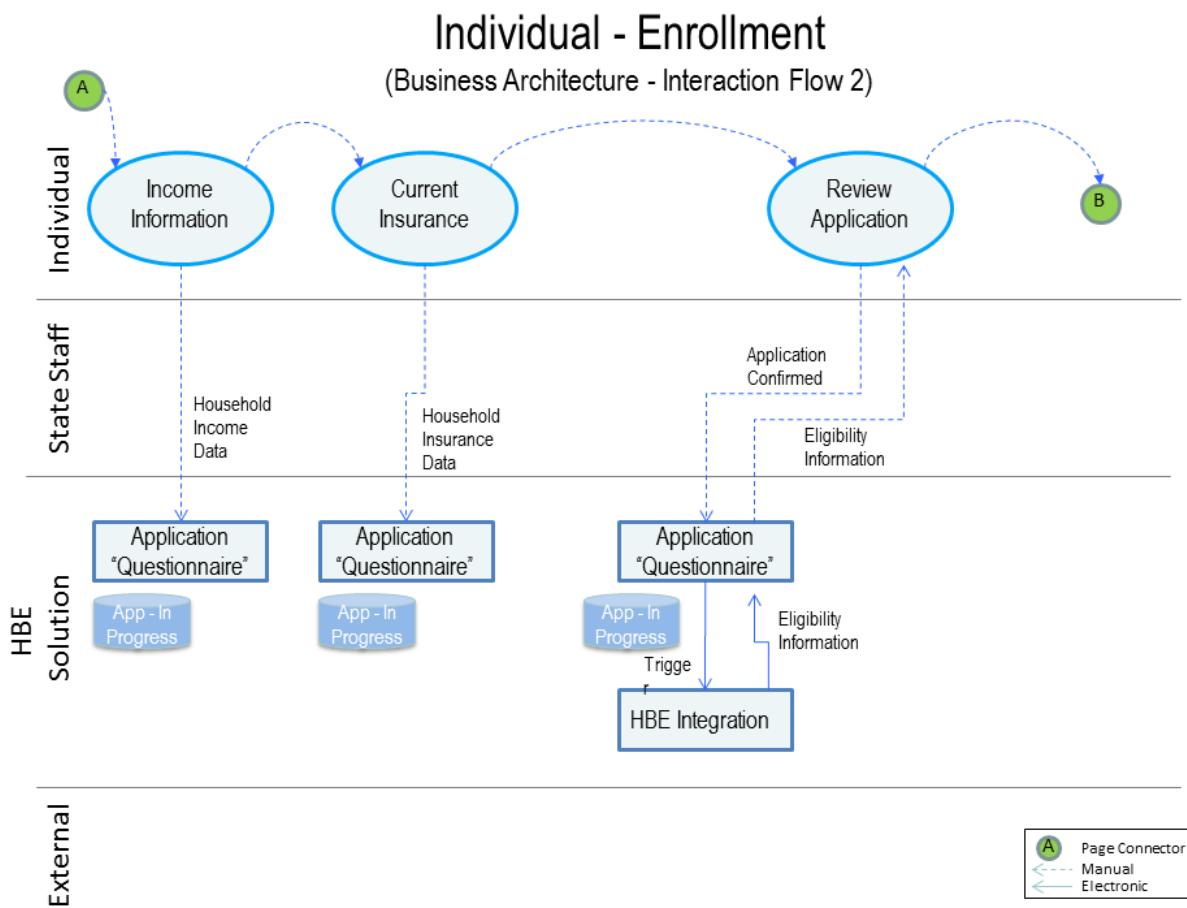
15.1 Scenario 1: Anonymous Browsing – Flow 1

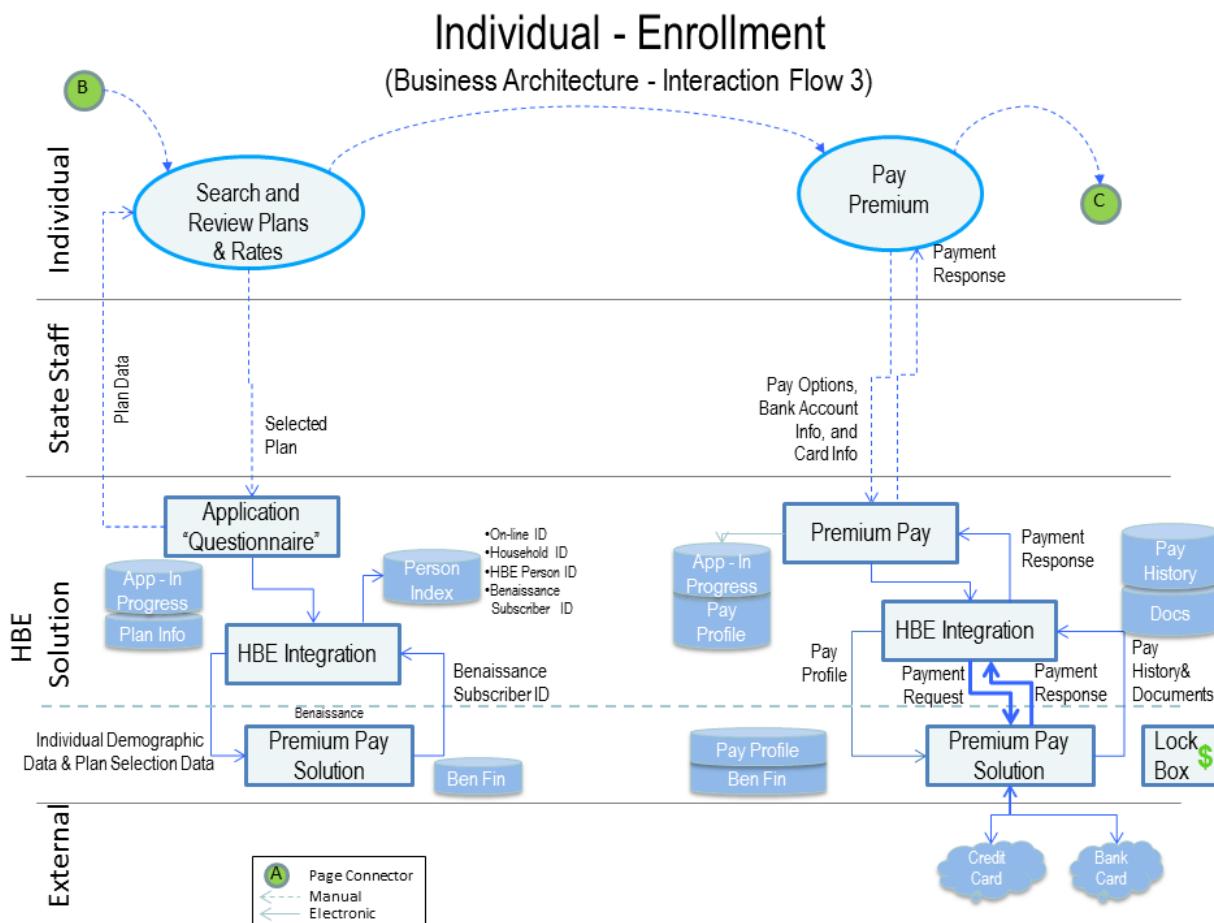


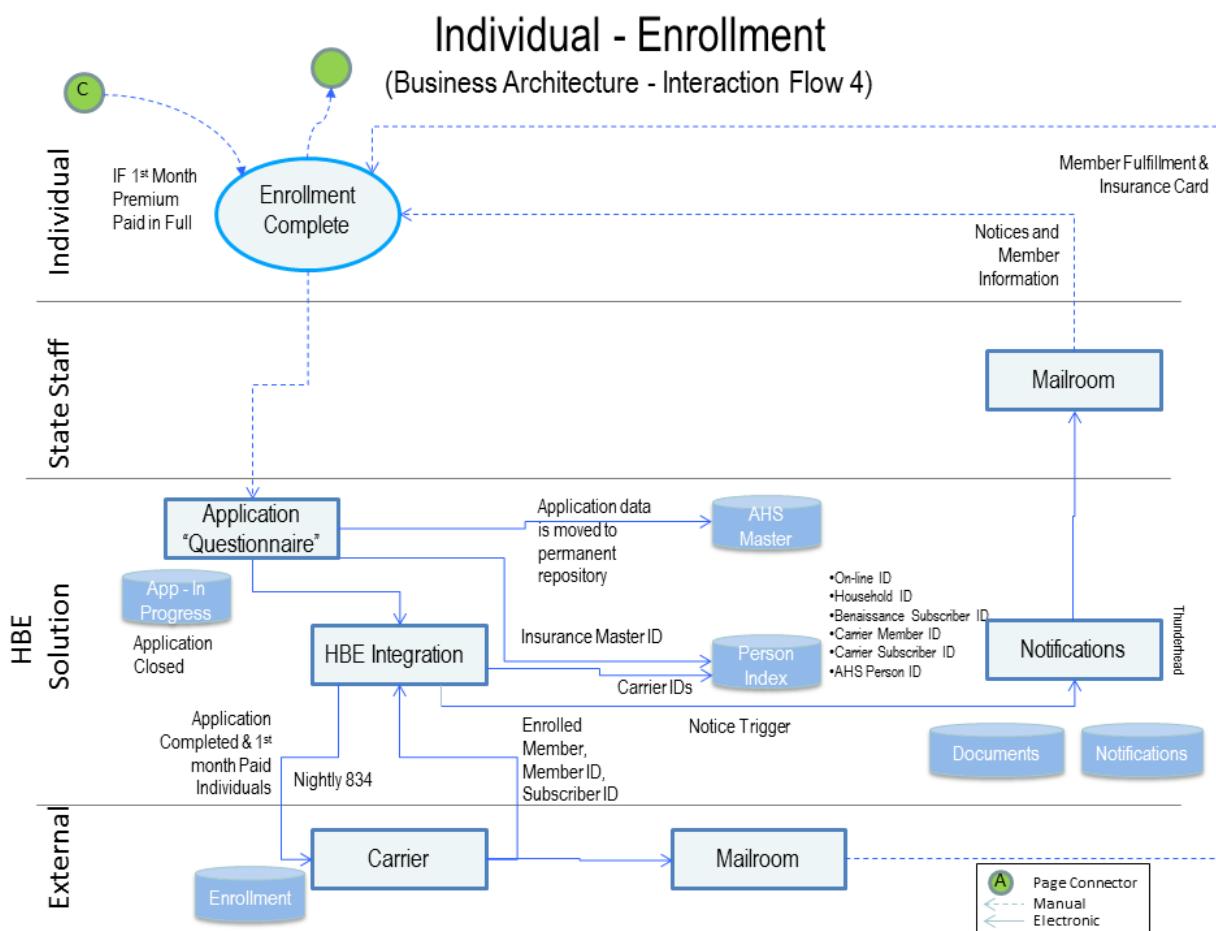


15.2 Scenario 2: Individual Enrollment

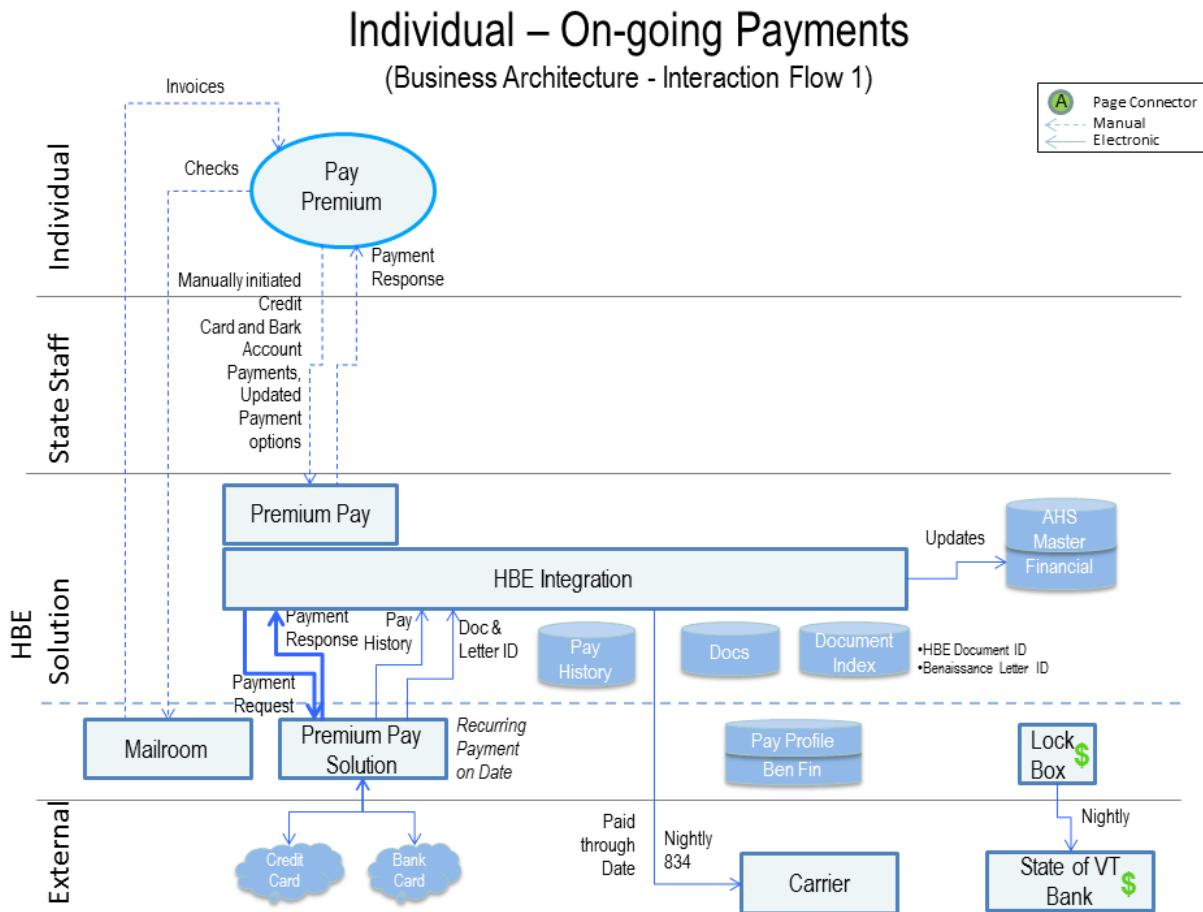




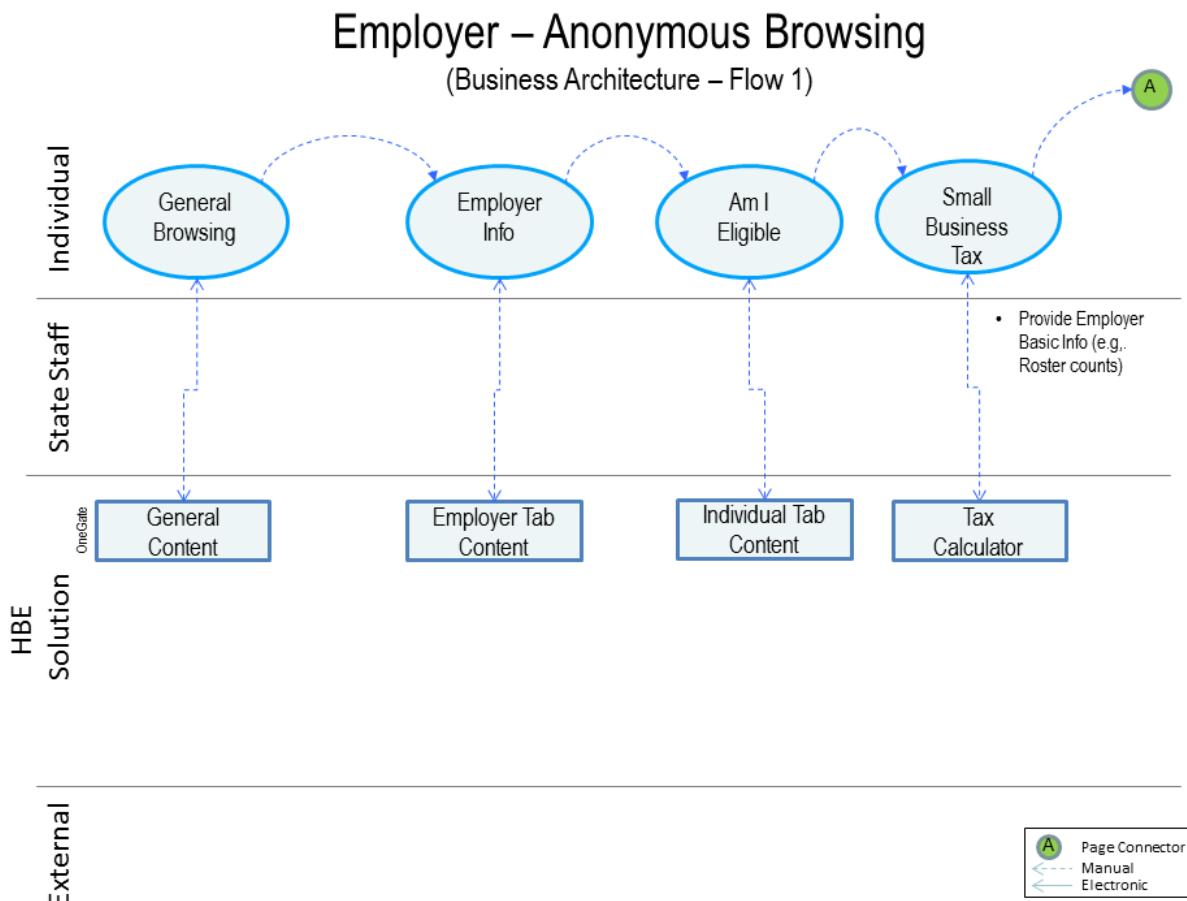


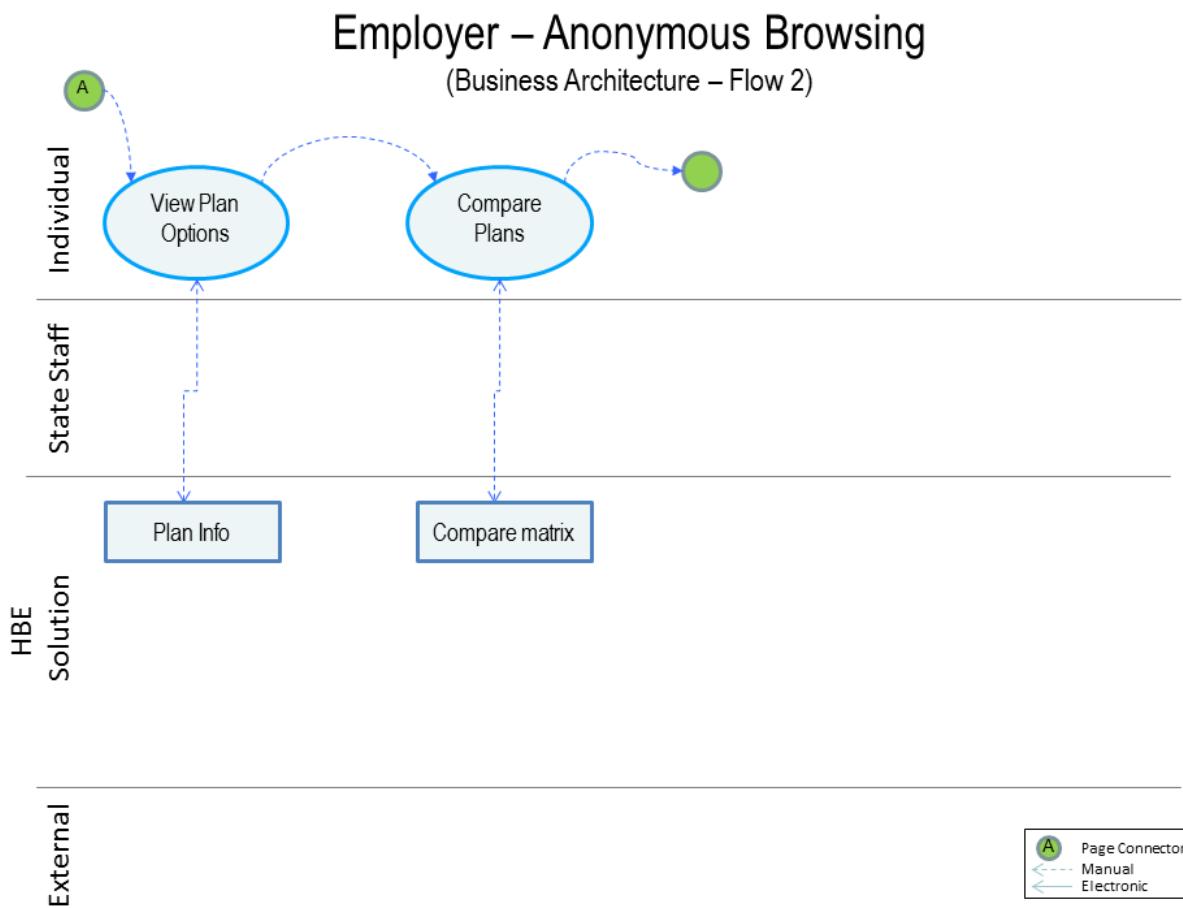


15.3 Scenario 3: Individual - On-going Payments

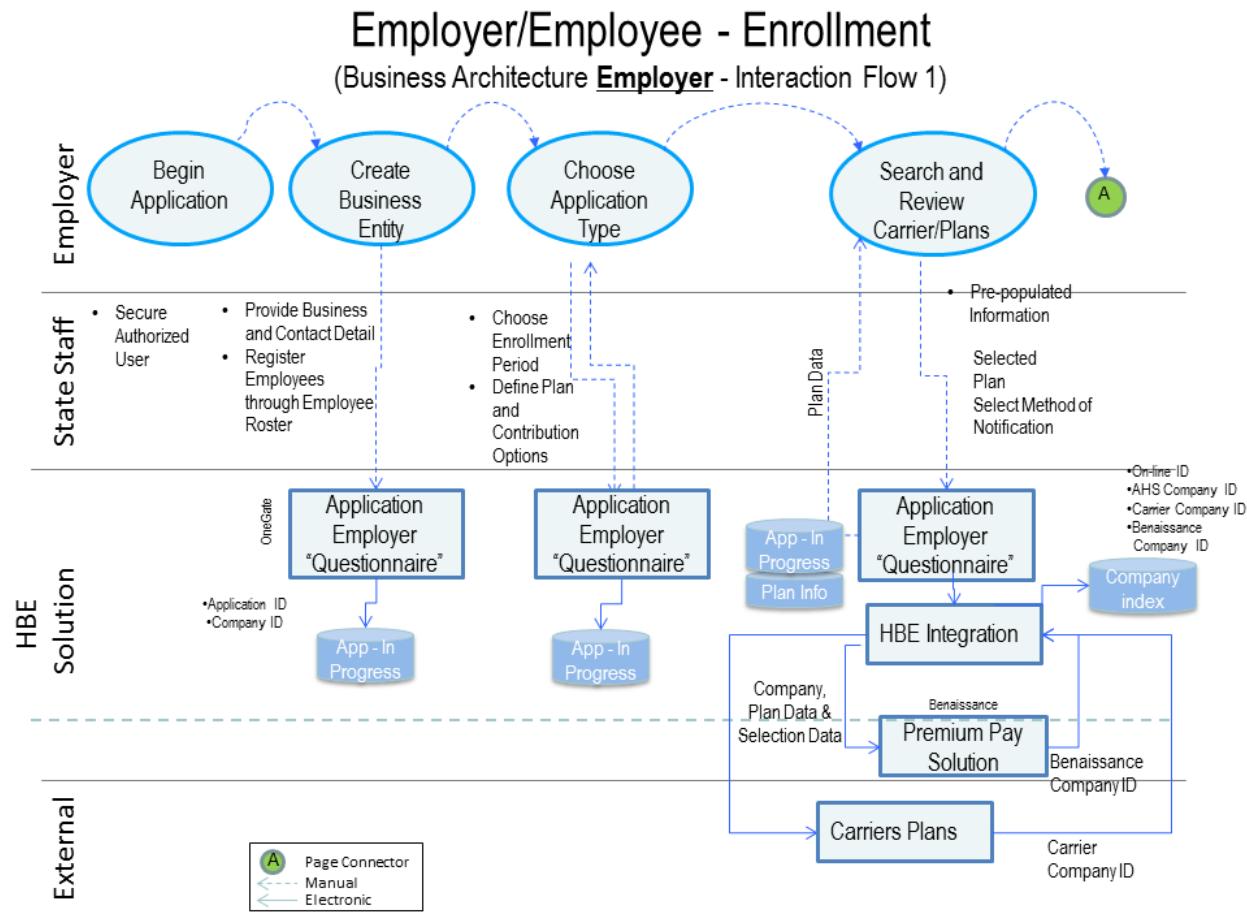


15.4 Scenario 4: Employer – Anonymous Browsing

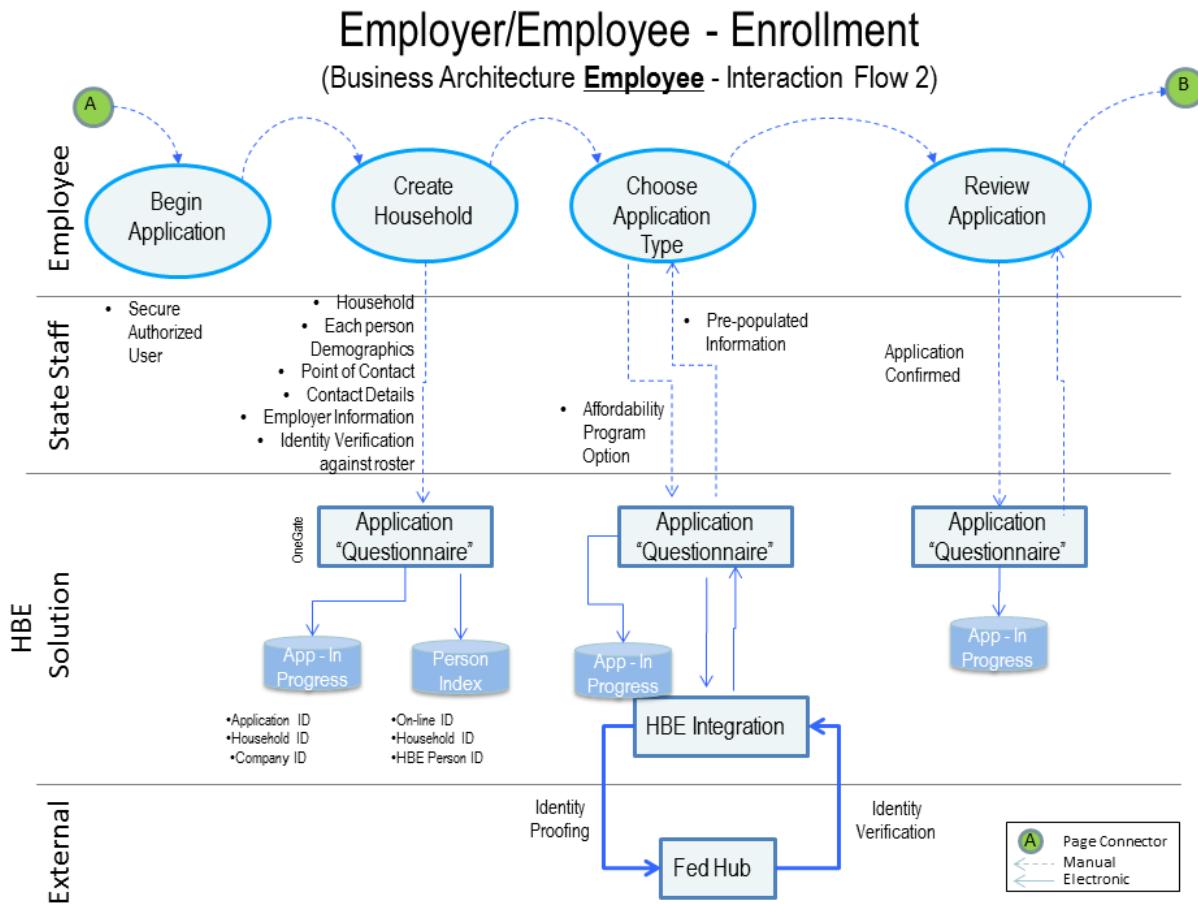




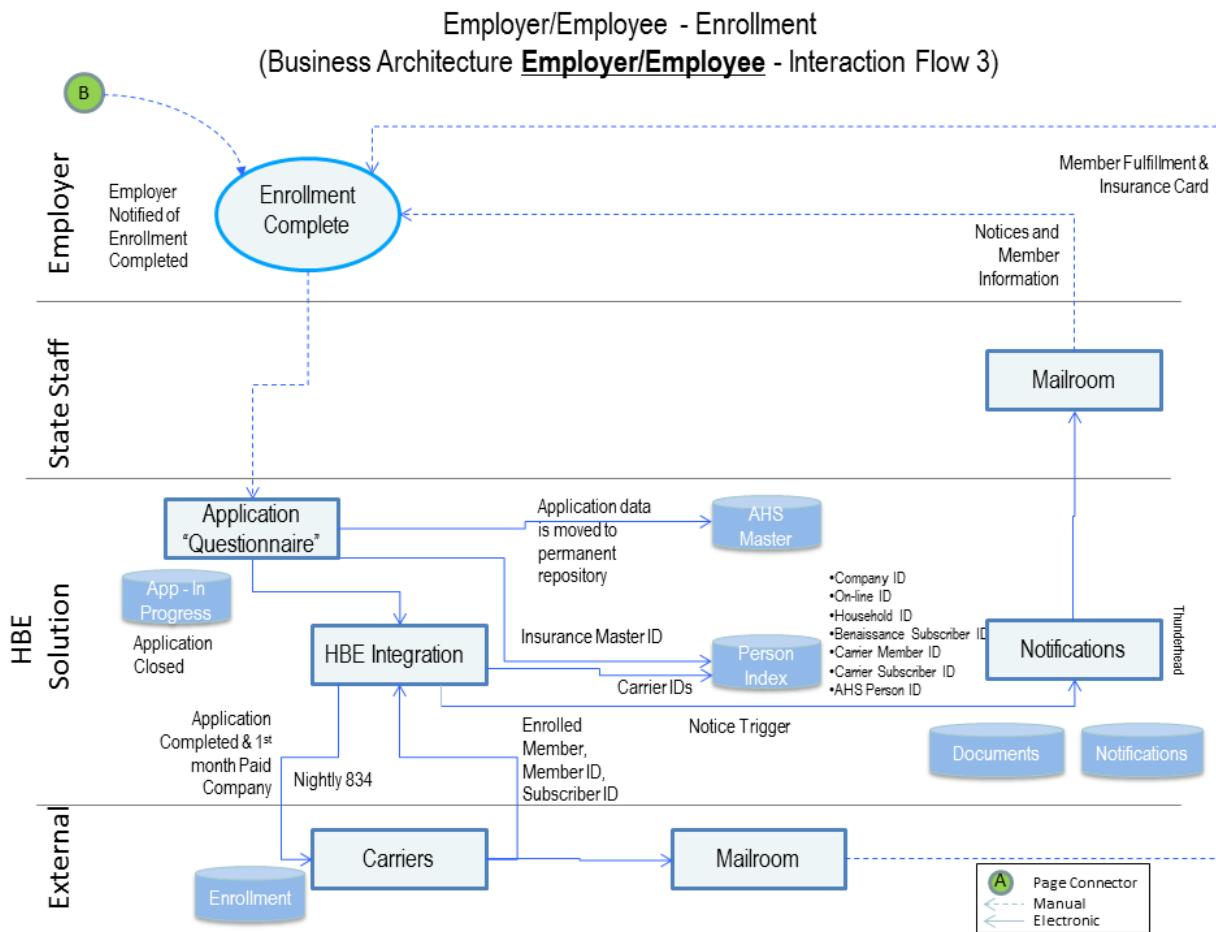
15.5 Scenario 5: Employer / Employee Enrollment – Employer Side



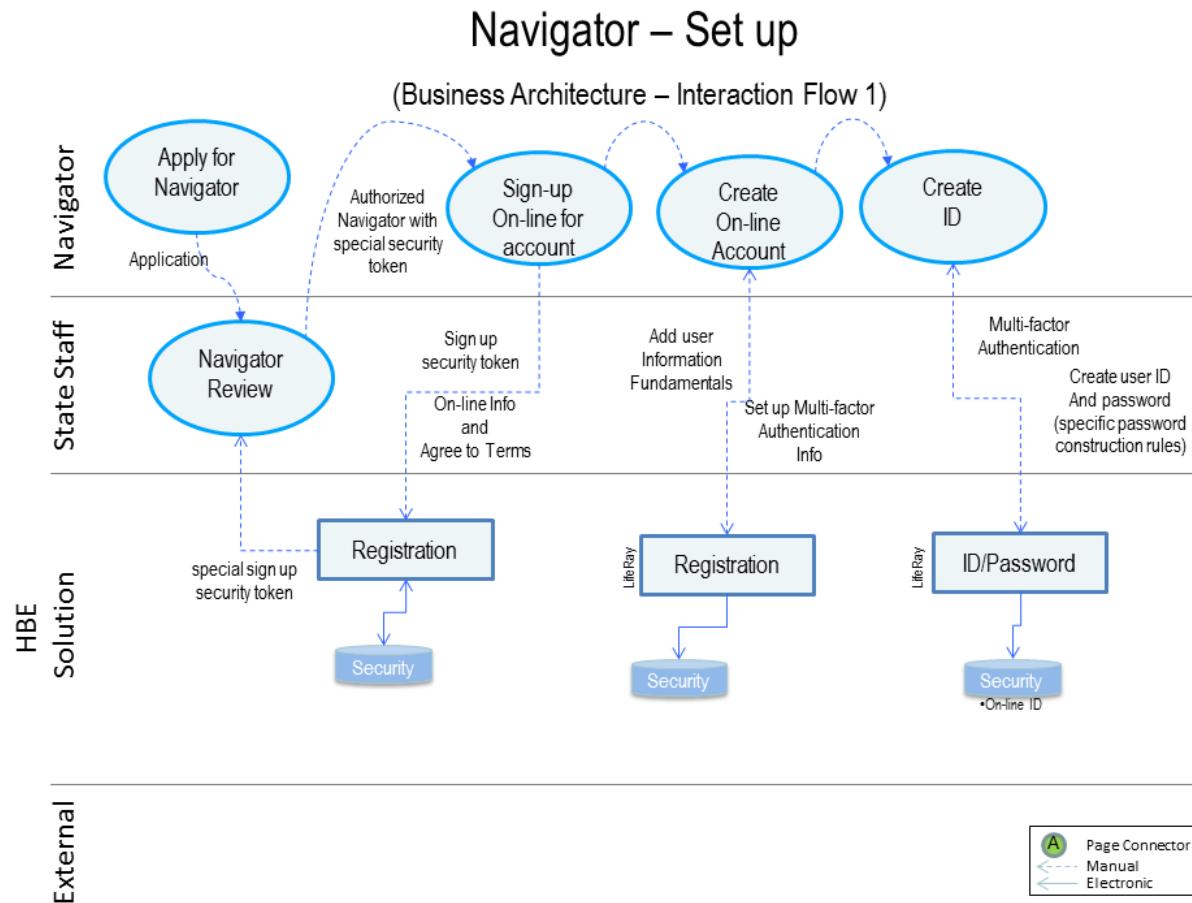
15.6 Scenario 5: Employer / Employee Enrollment – Employee Side



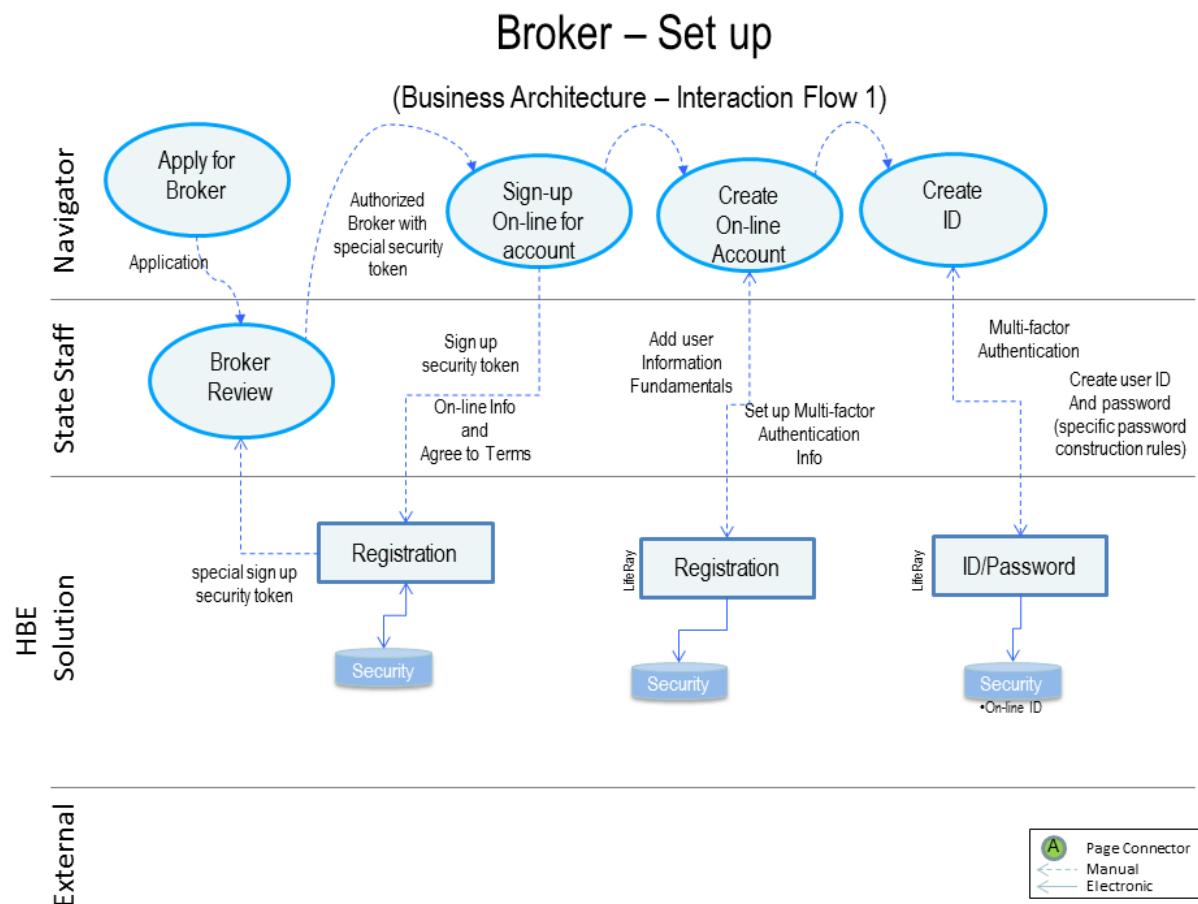
15.7 Scenario 5: Employer / Employee Enrollment



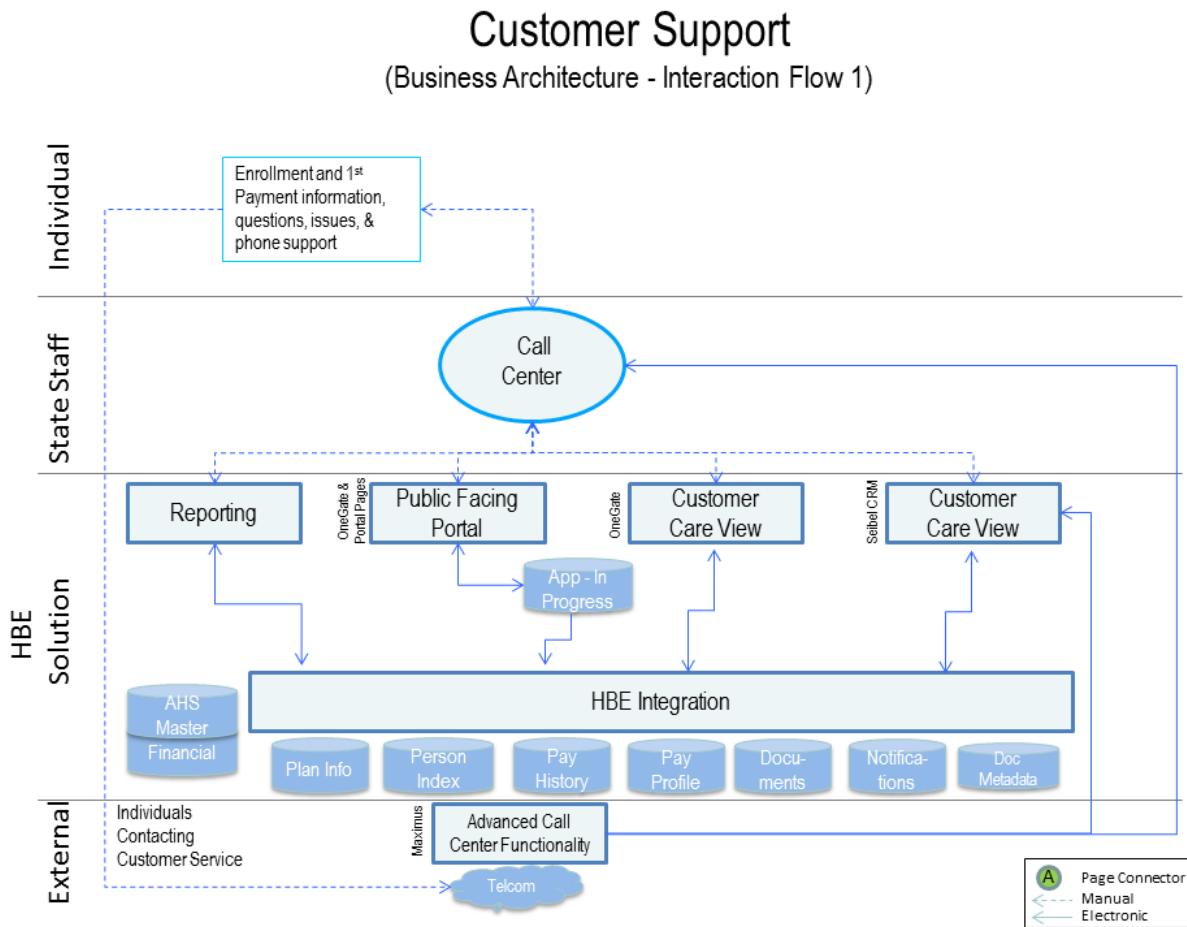
15.8 Scenario 6: Navigator



15.9 Scenario 7: Broker



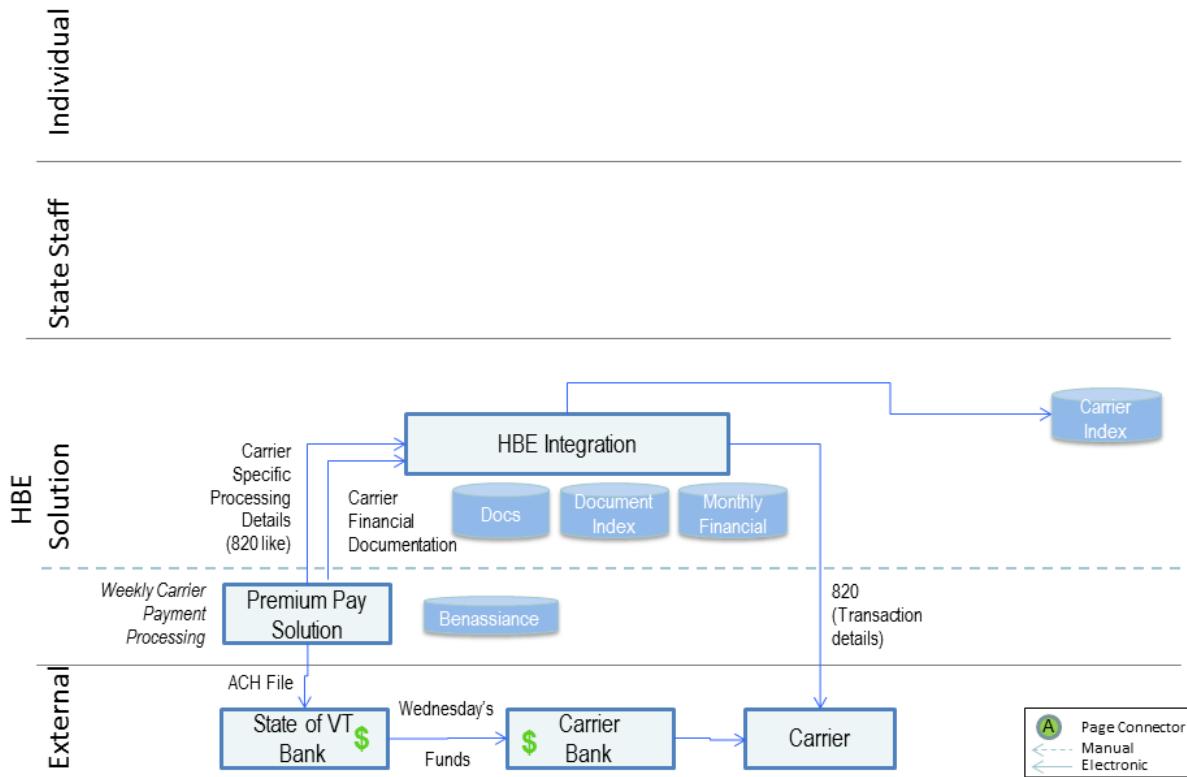
15.10 Scenario 8: Customer Support



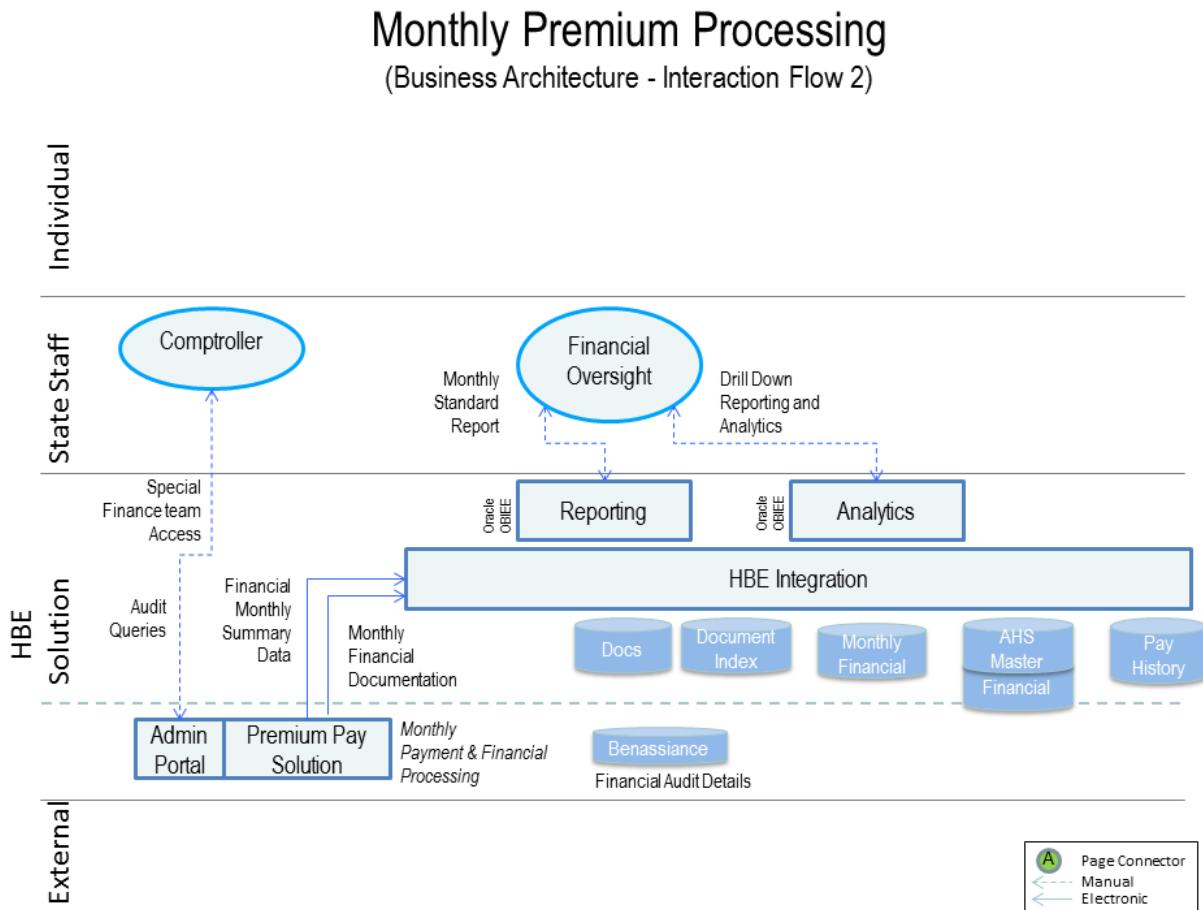
15.11 Scenario 9: Weekly Premium Processing

Weekly Premium Processing

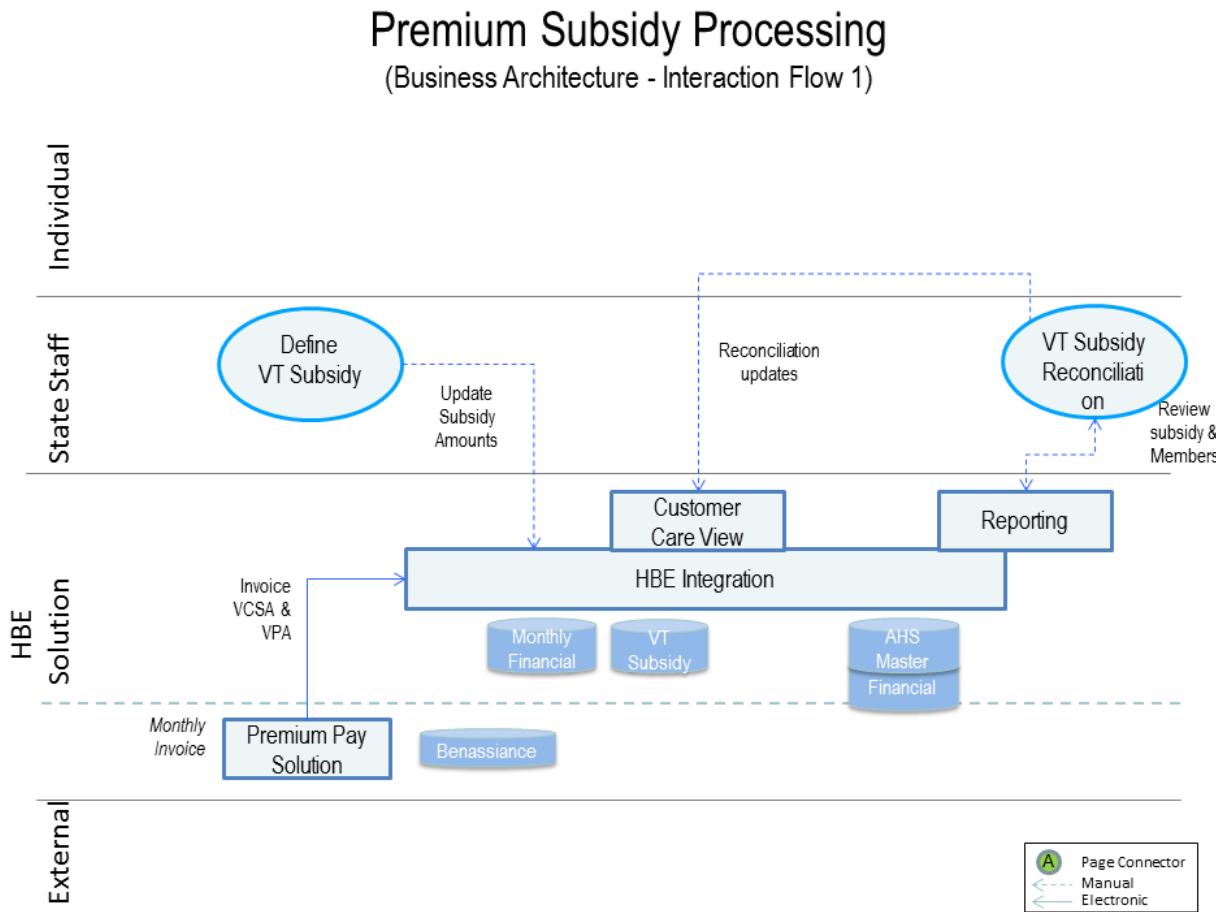
(Business Architecture - Interaction Flow 1)



15.12 Scenario 10: Monthly Premium Processing



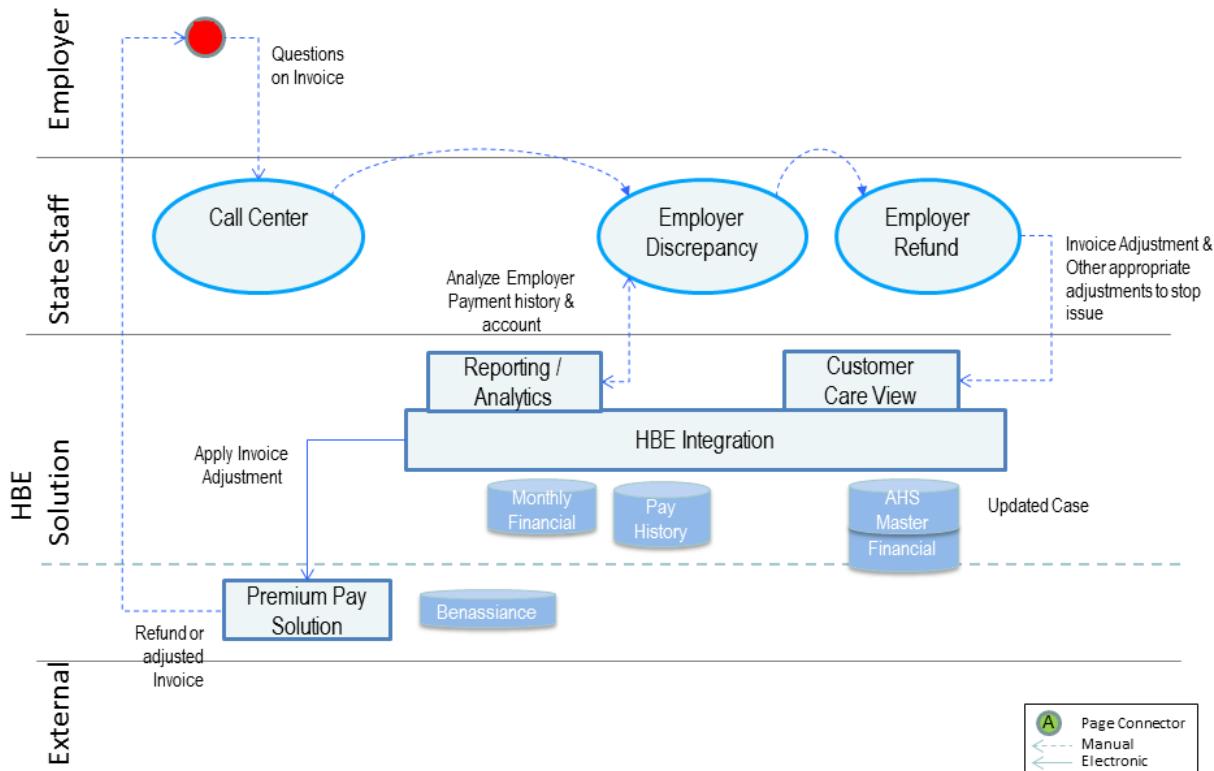
15.13 Scenario 11: Premium Subsidy Processing



15.14 Scenario 12: Employer Discrepancy & Refund Processing

Employer Discrepancy & Refund Processing

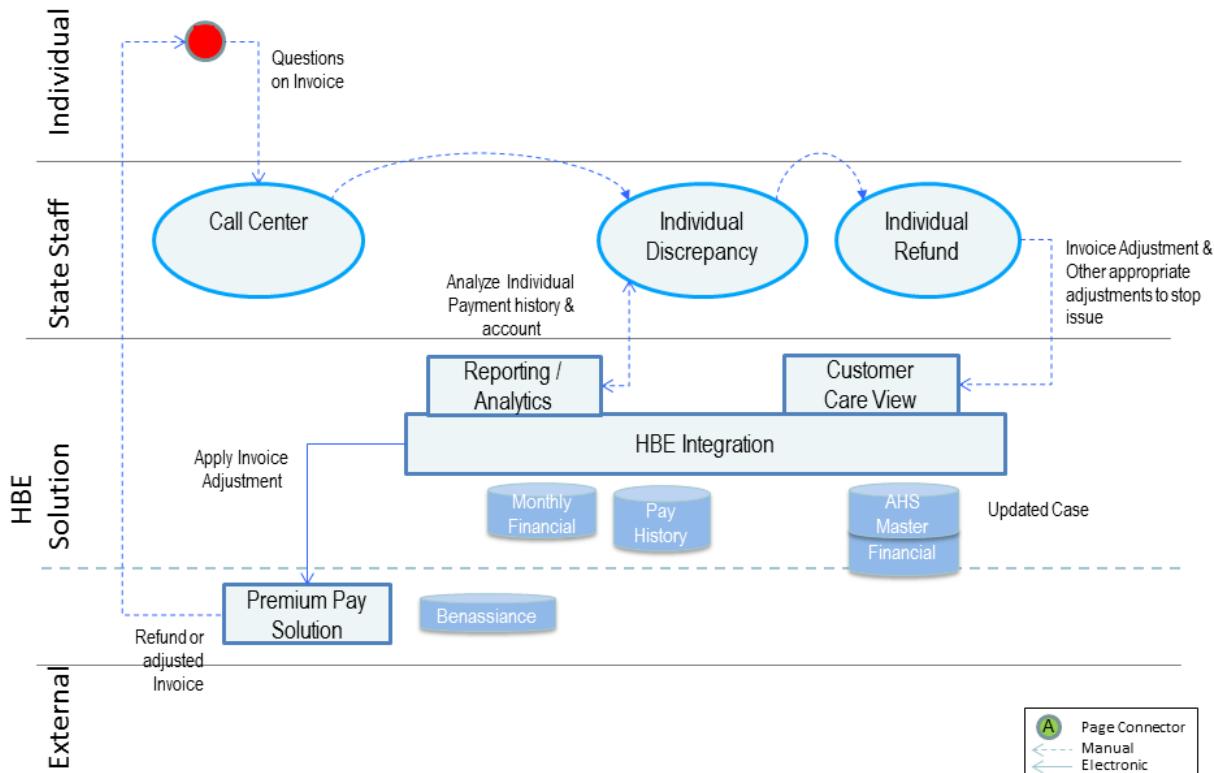
(Business Architecture - Interaction Flow 1)



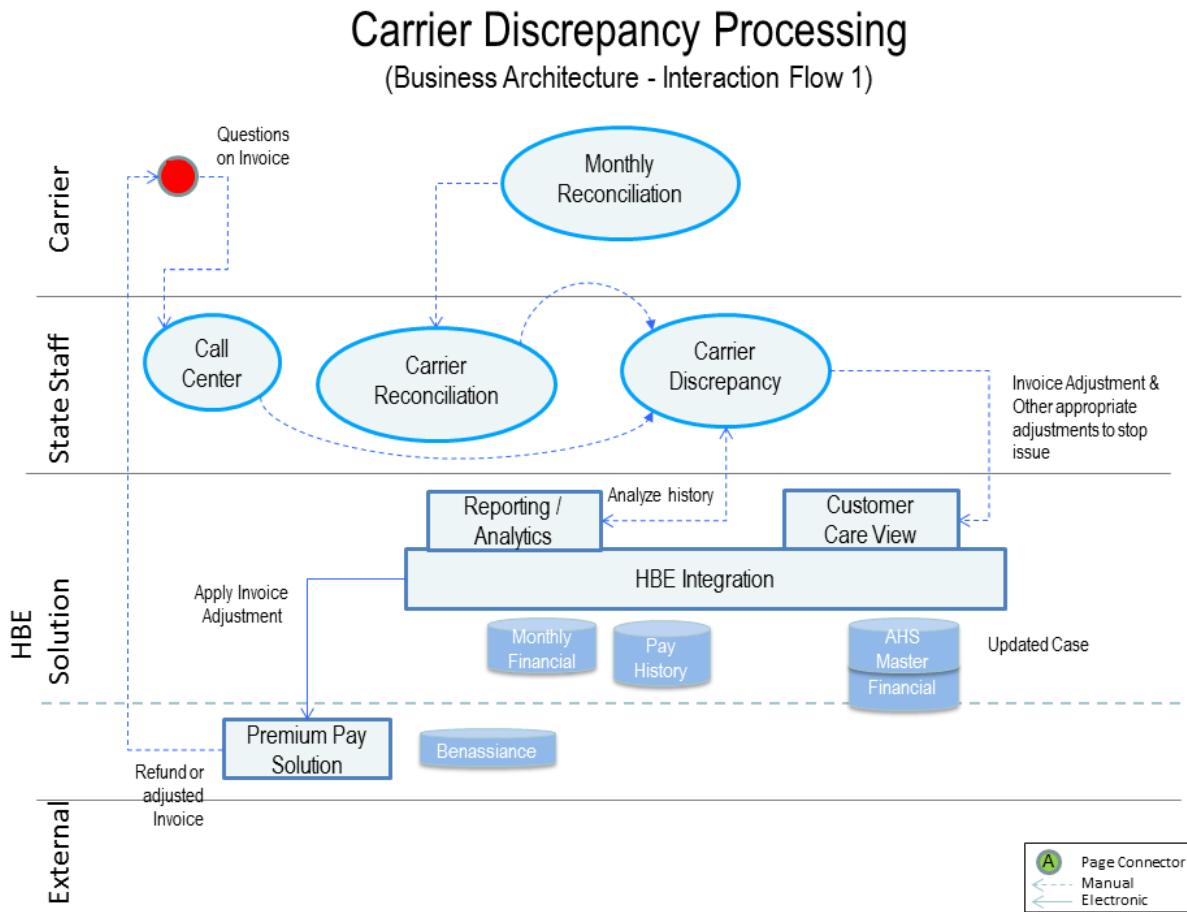
15.15 Scenario 13: Individual Discrepancy & Refund Processing

Individual Discrepancy & Refund Processing

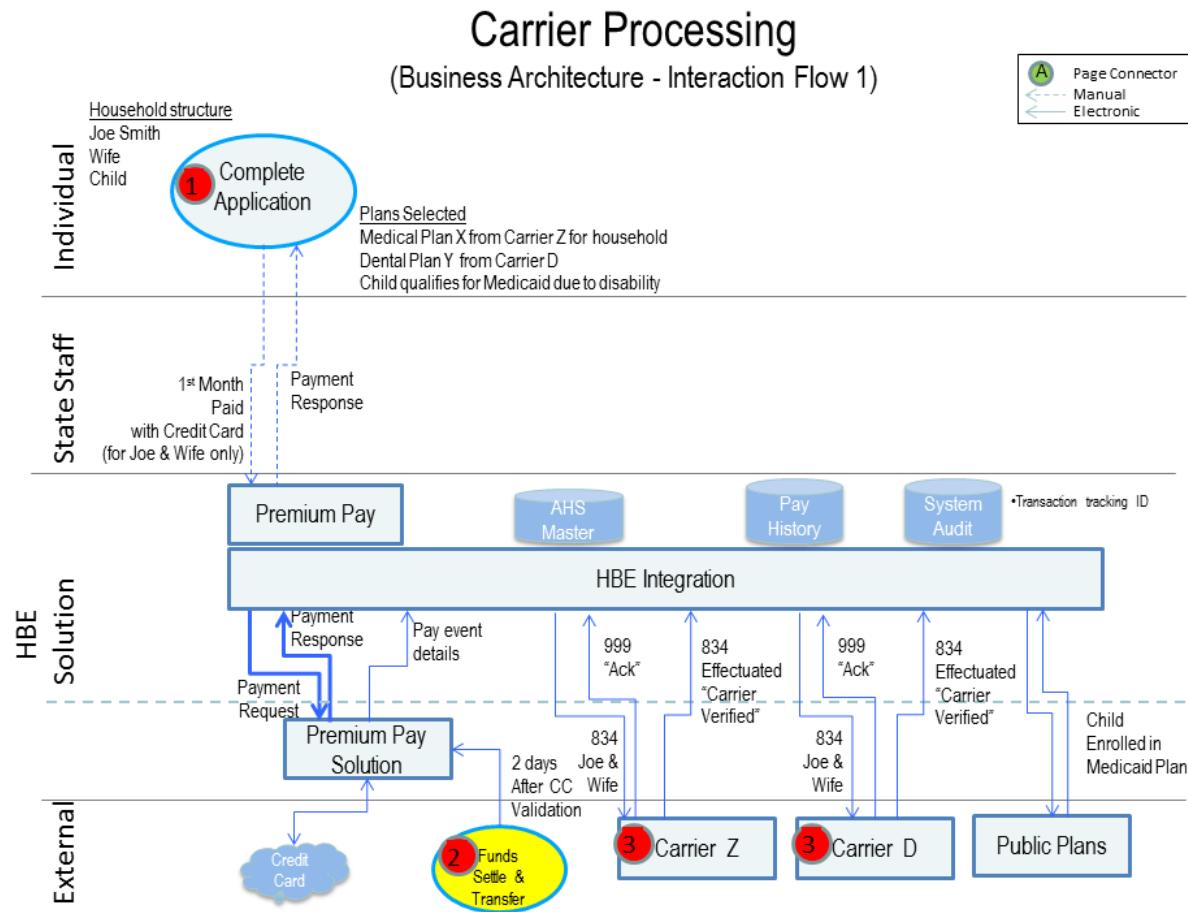
(Business Architecture - Interaction Flow 1)

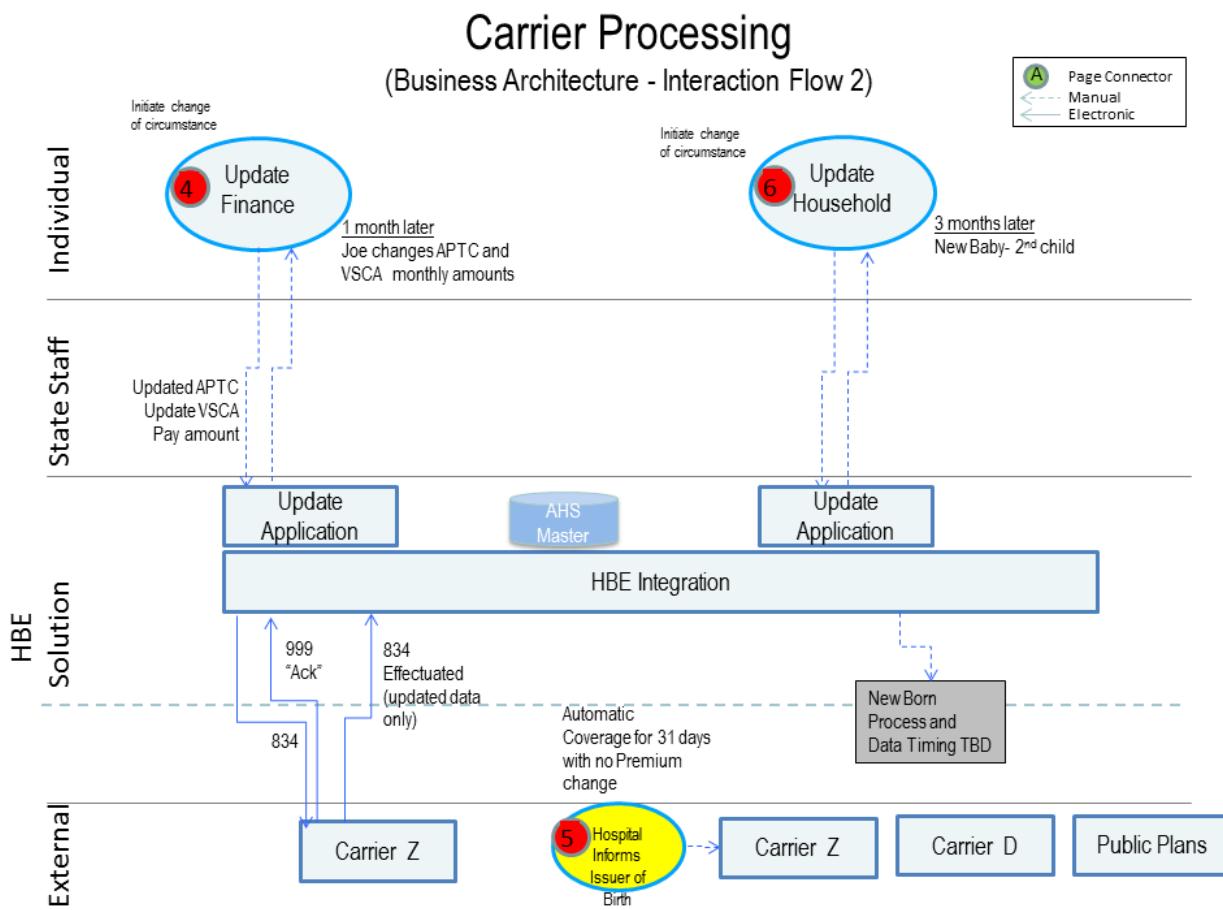


15.16 Scenario 14: Carrier Discrepancy Processing



15.17 Scenario 15: Carrier Processing

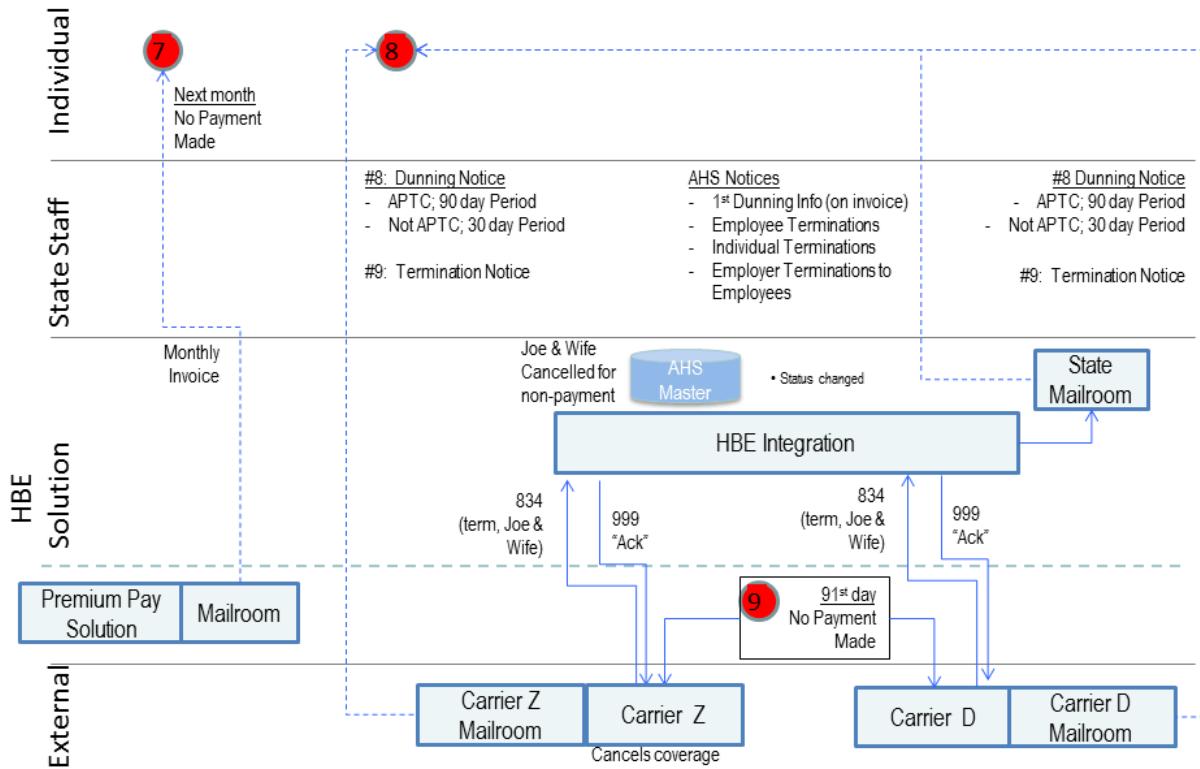


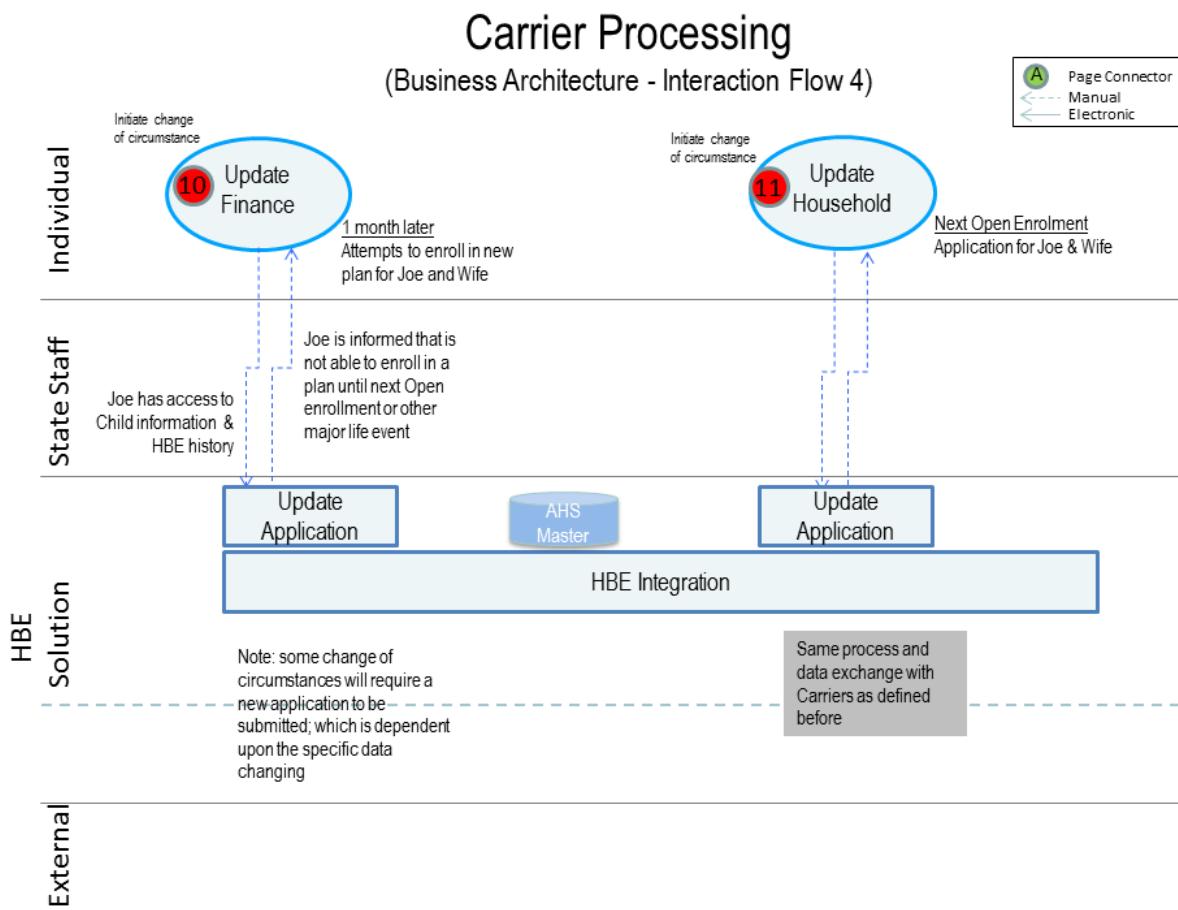


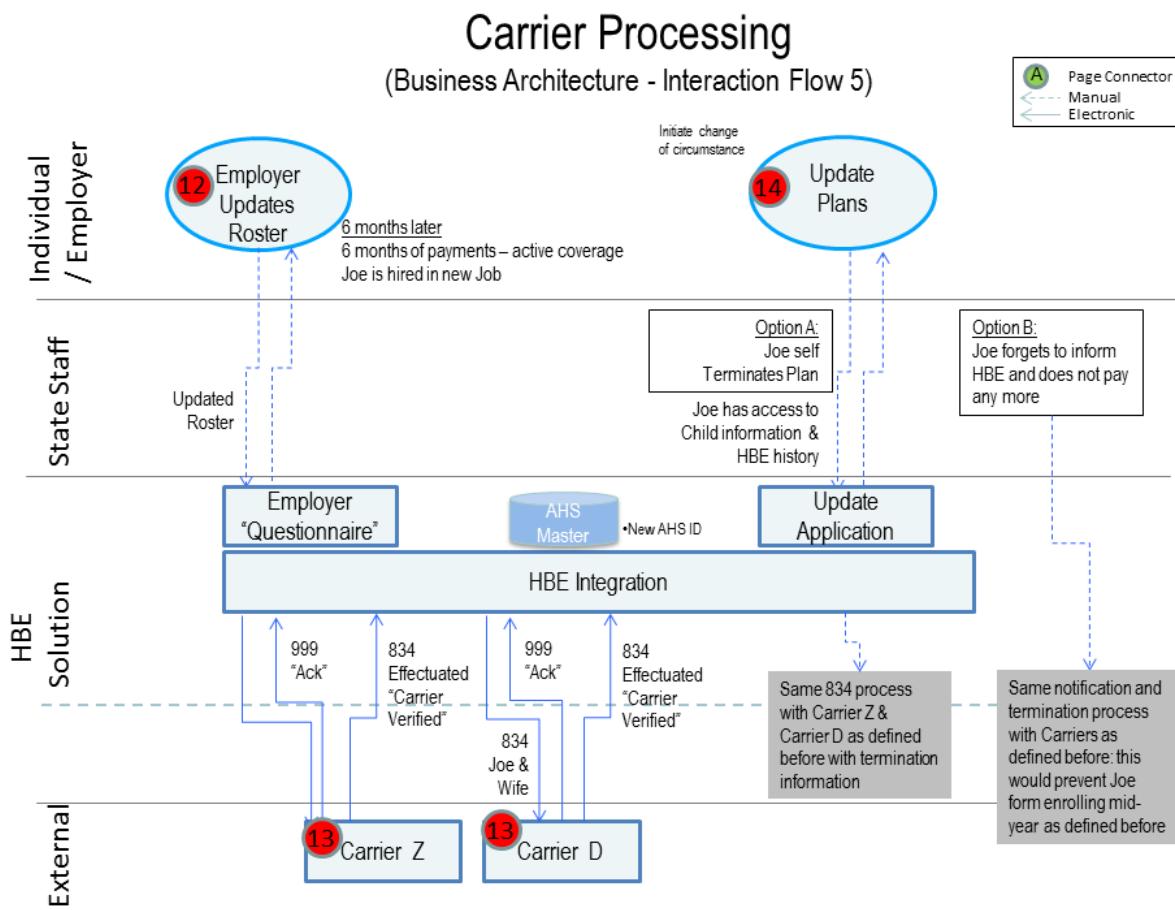
Carrier Processing

(Business Architecture - Interaction Flow 3)

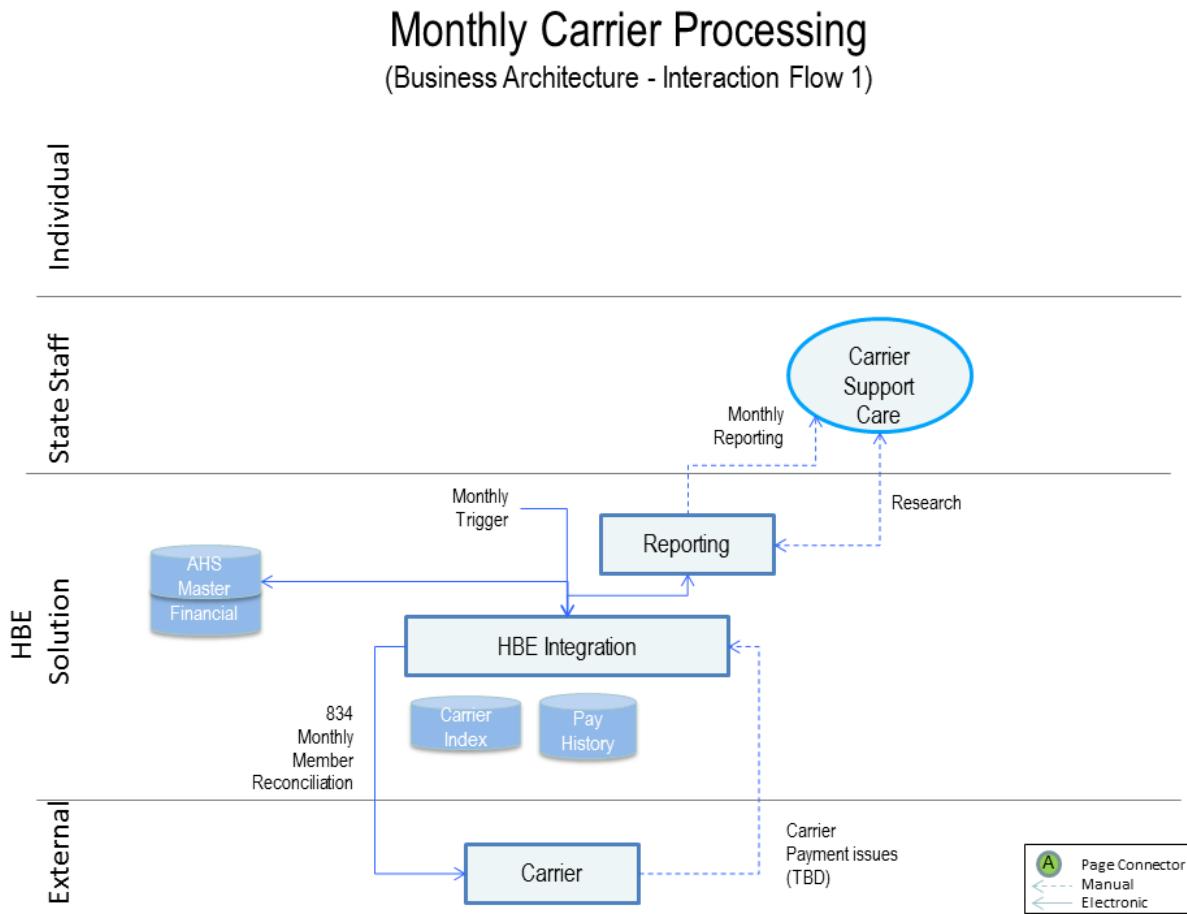
 Page Connector
 Manual
 Electronic



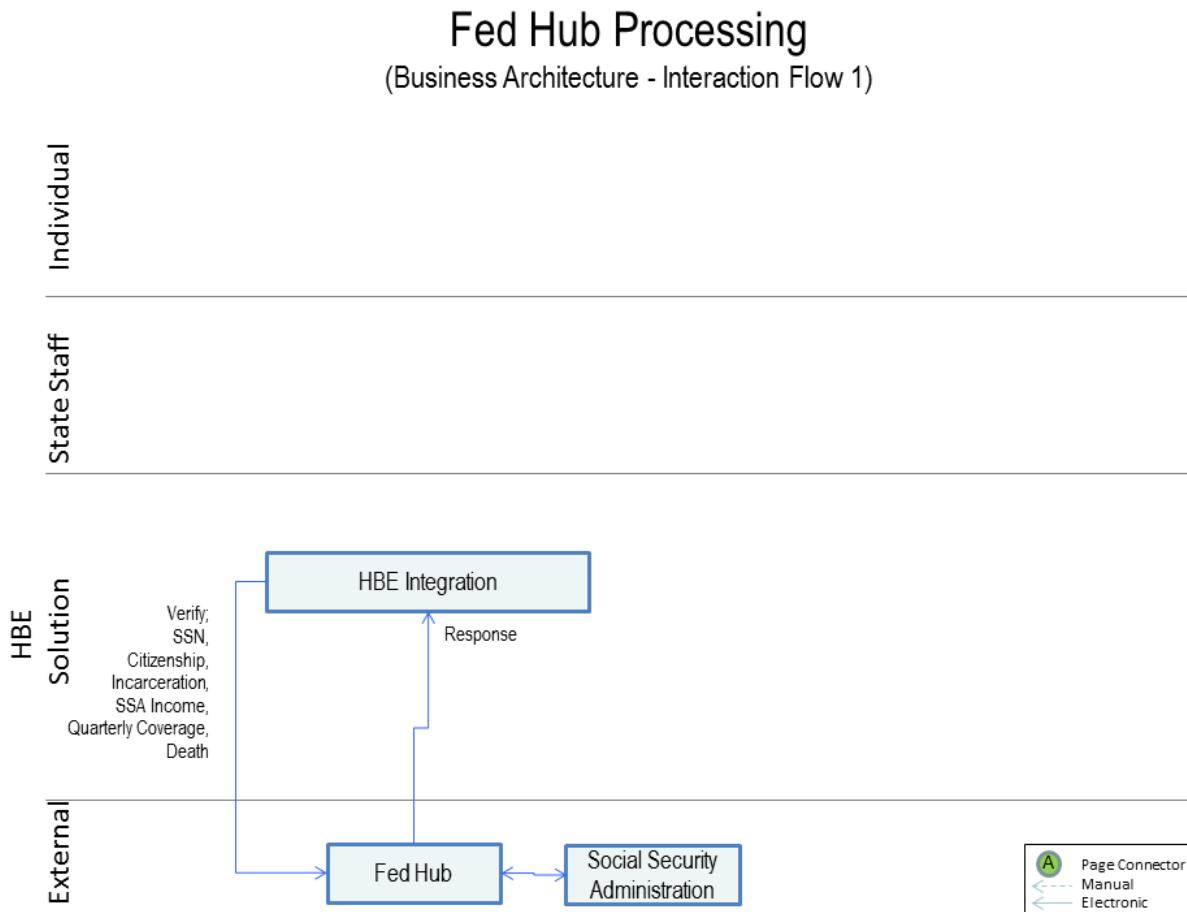




15.18 Scenario 16: Monthly Carrier Processing

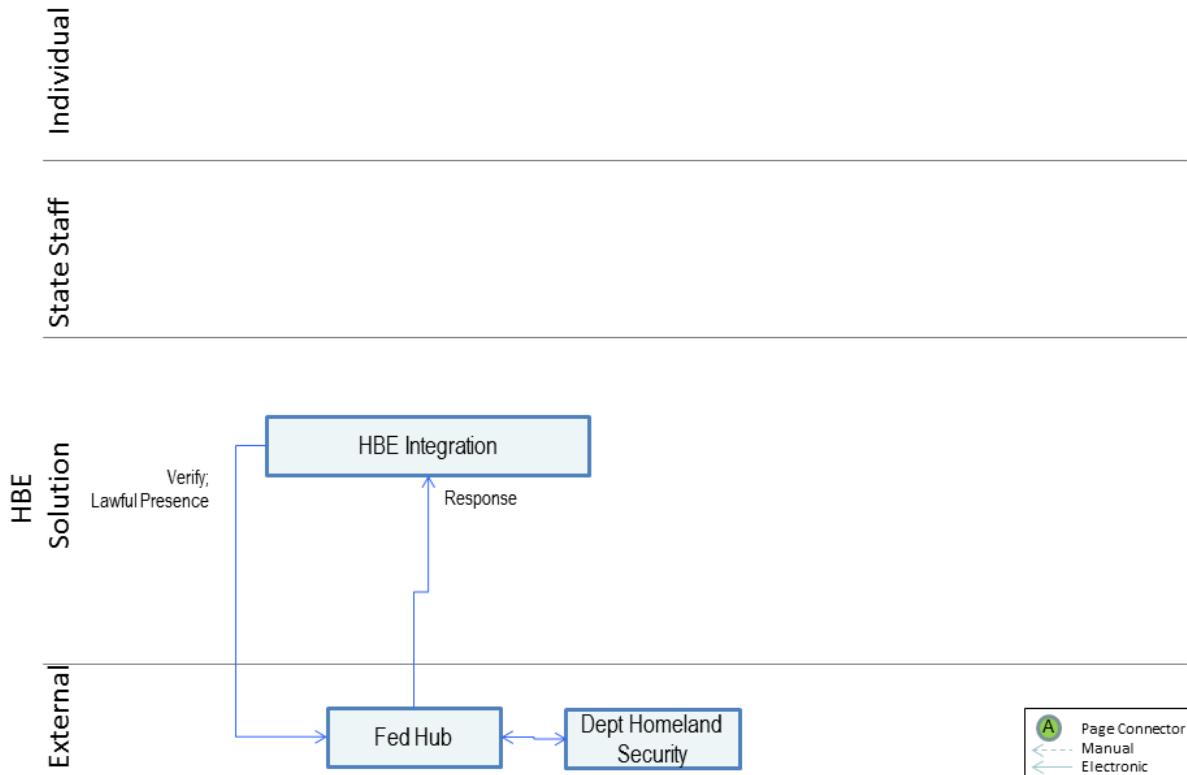


15.19 Scenario 17: Federal Hub Processing



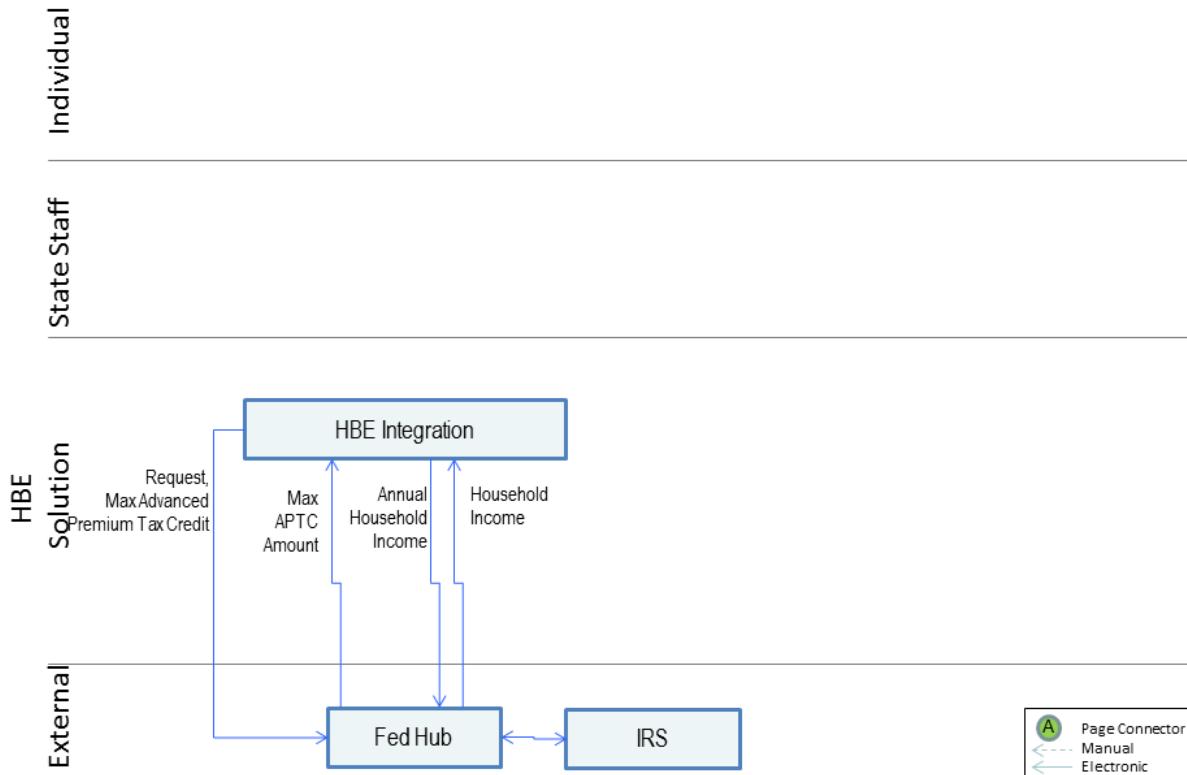
Fed Hub Processing

(Business Architecture - Interaction Flow 2)



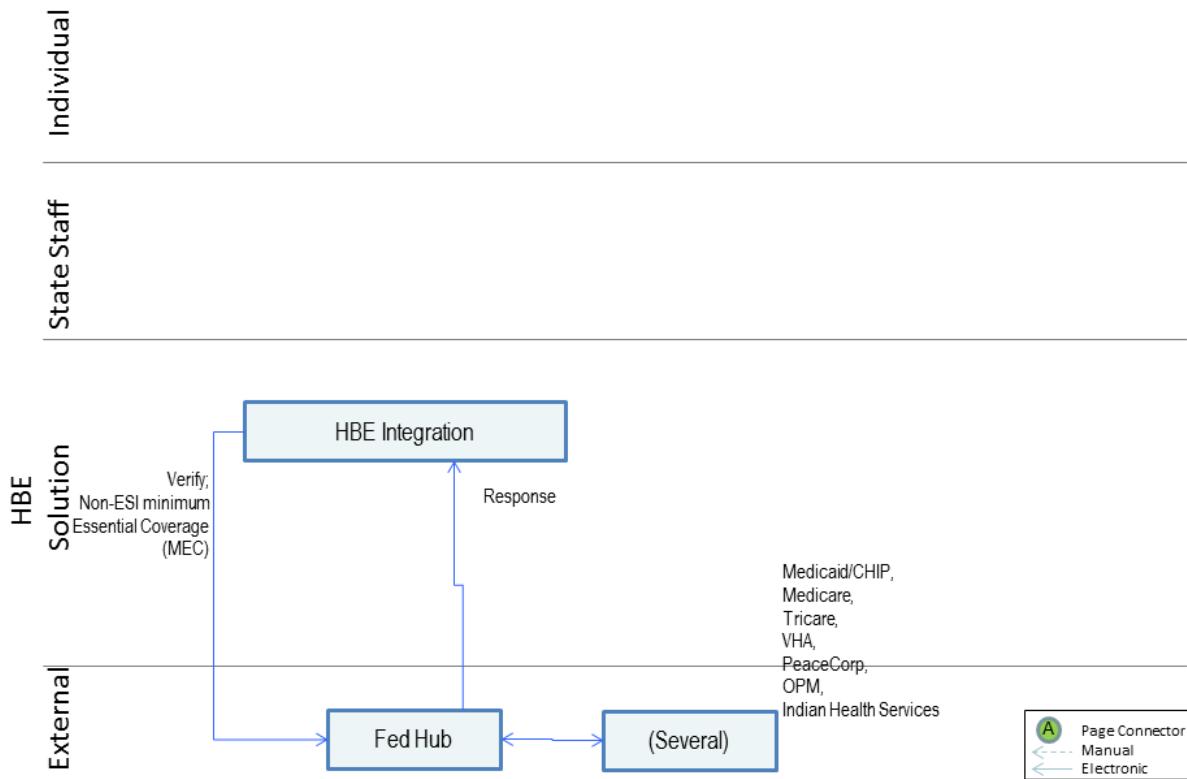
Fed Hub Processing

(Business Architecture - Interaction Flow 3)



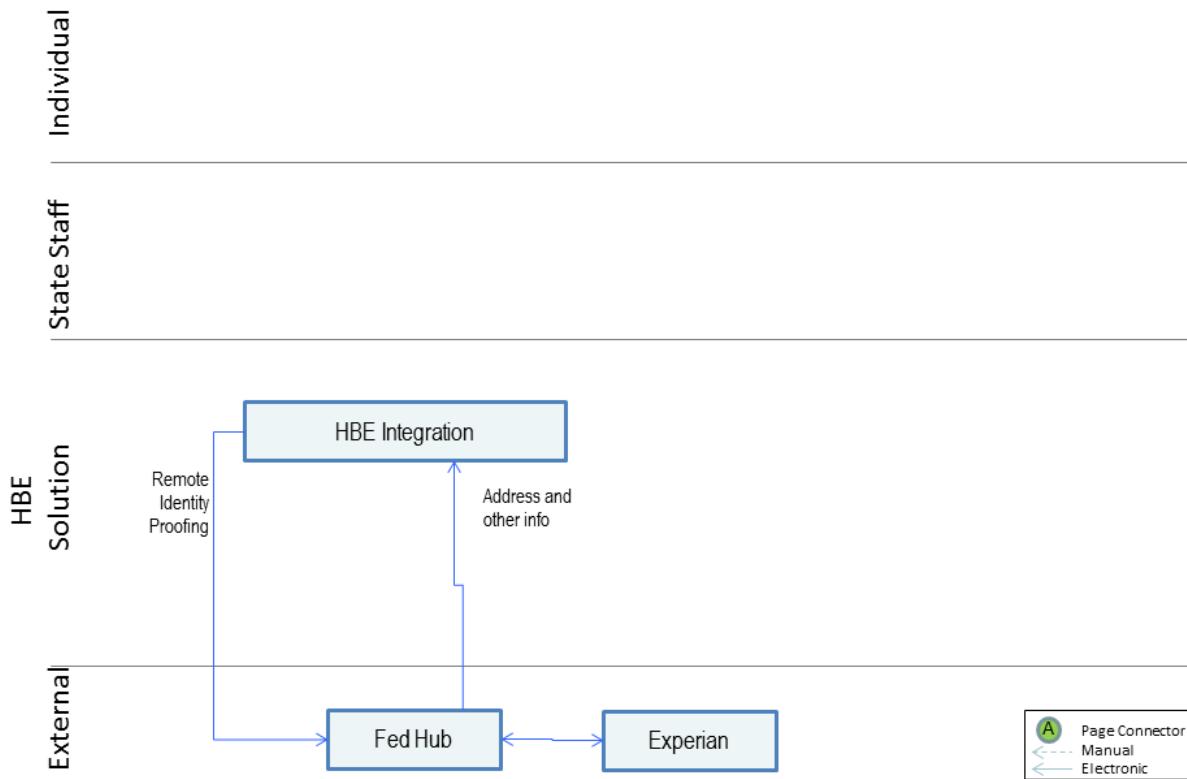
Fed Hub Processing

(Business Architecture - Interaction Flow 4)



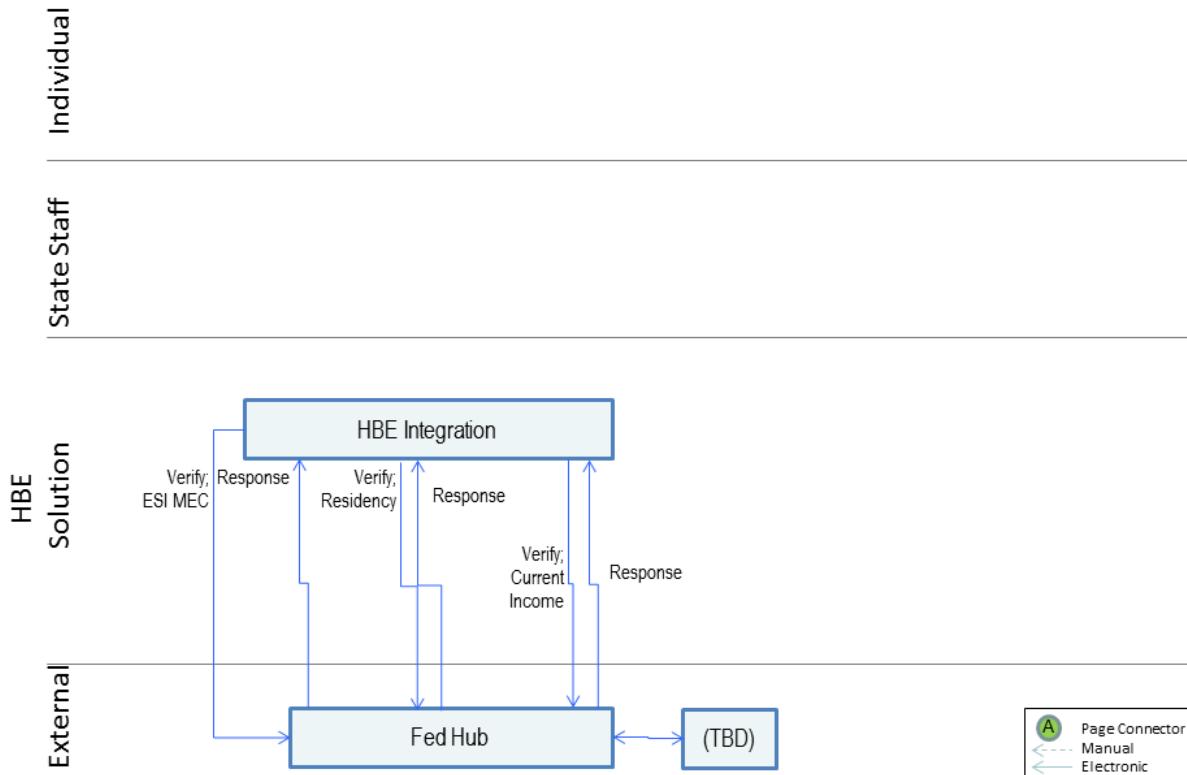
Fed Hub Processing

(Business Architecture - Interaction Flow 5)



Fed Hub Processing

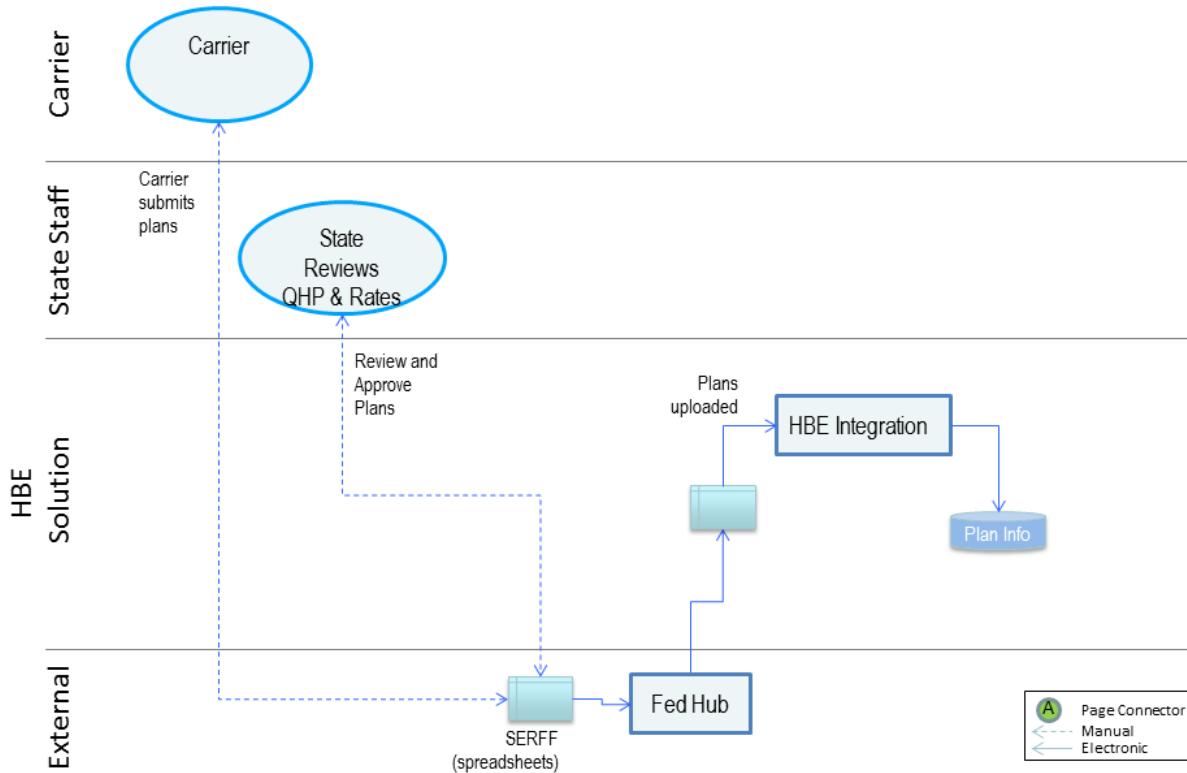
(Business Architecture - Interaction Flow 6)



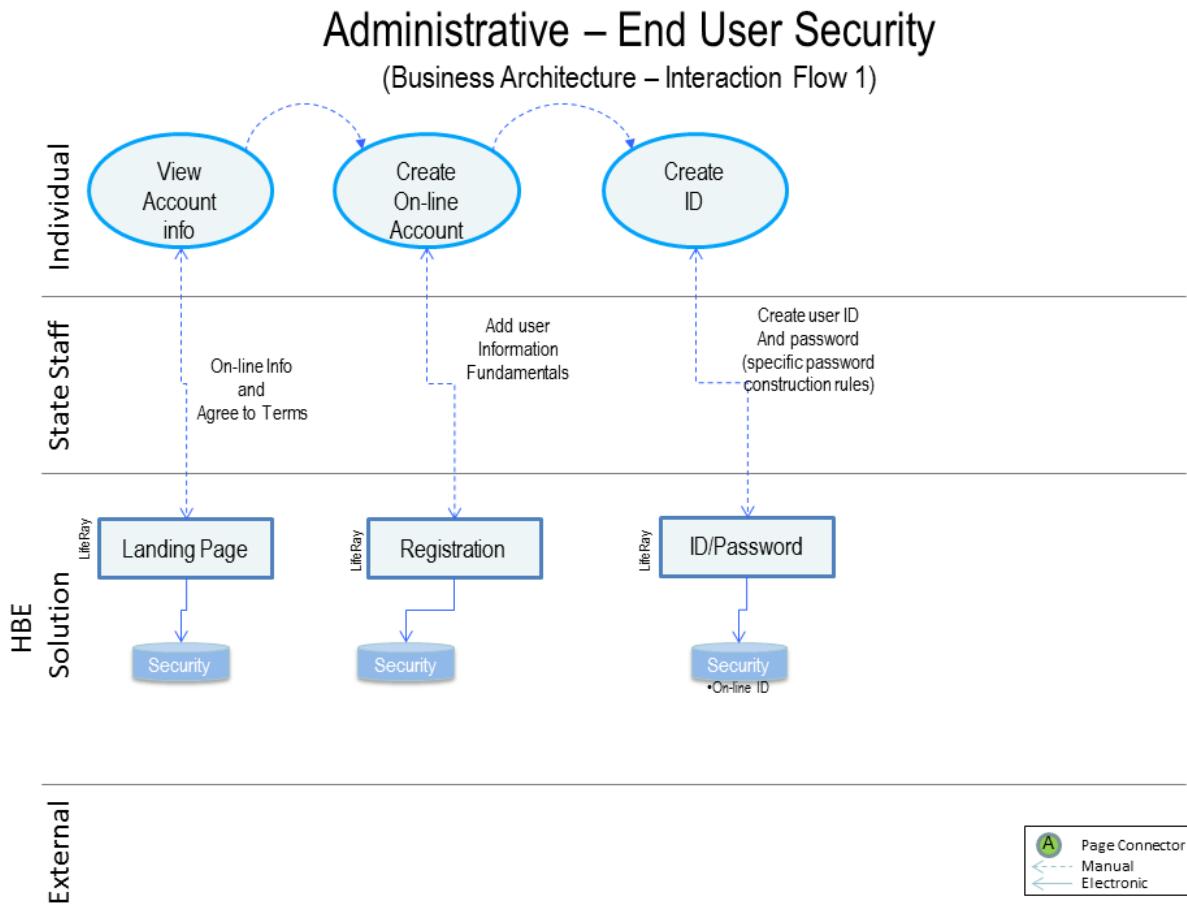
15.20 Scenario 18: Individual – Plan Management

Individual – Plan Management

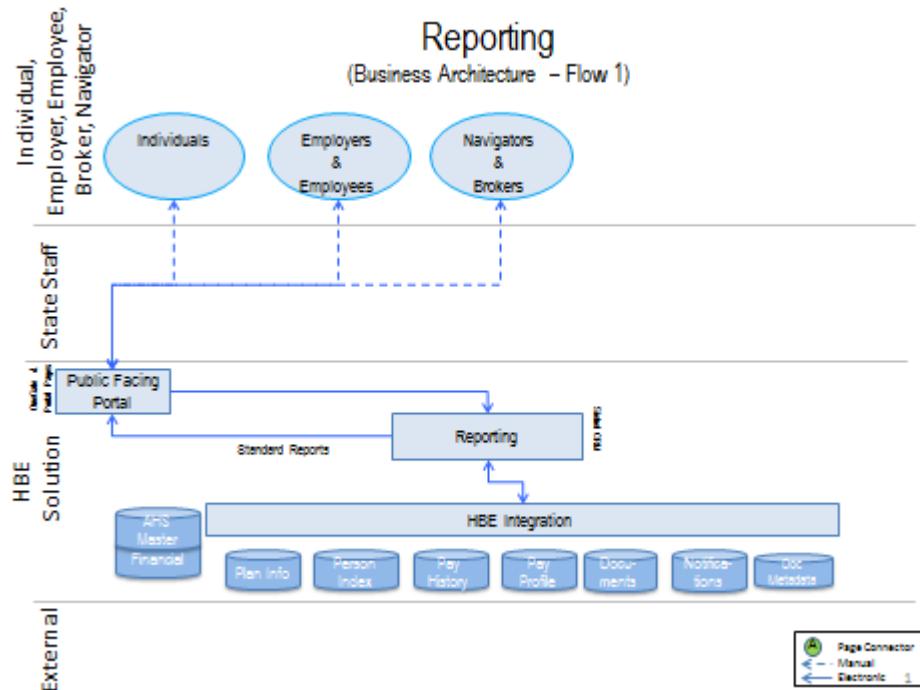
(Business Architecture – Plan Flow 1)

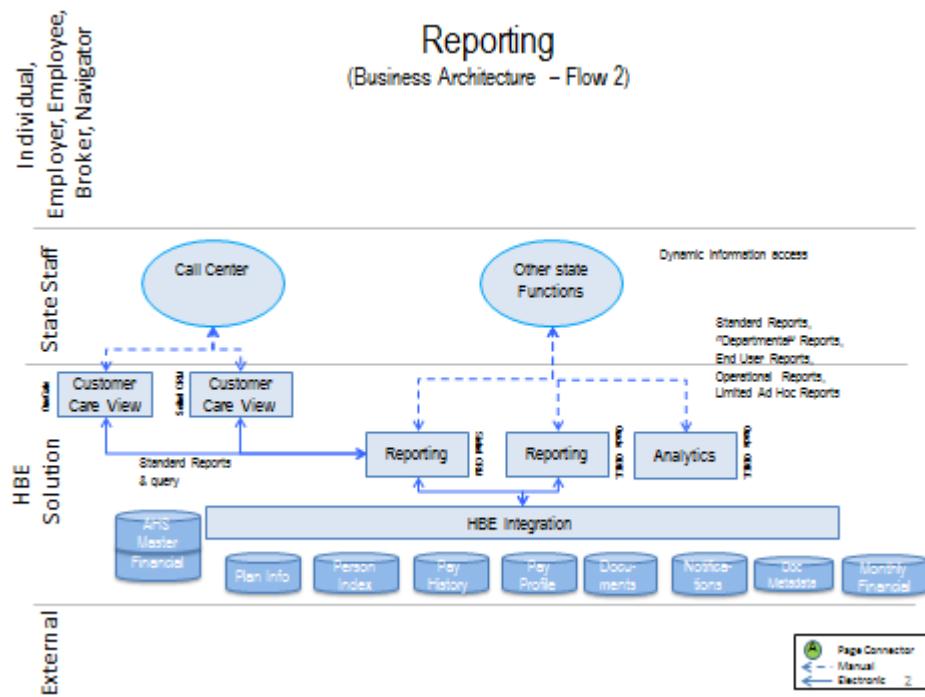


15.21 Scenario 19: Administrative – End User Security

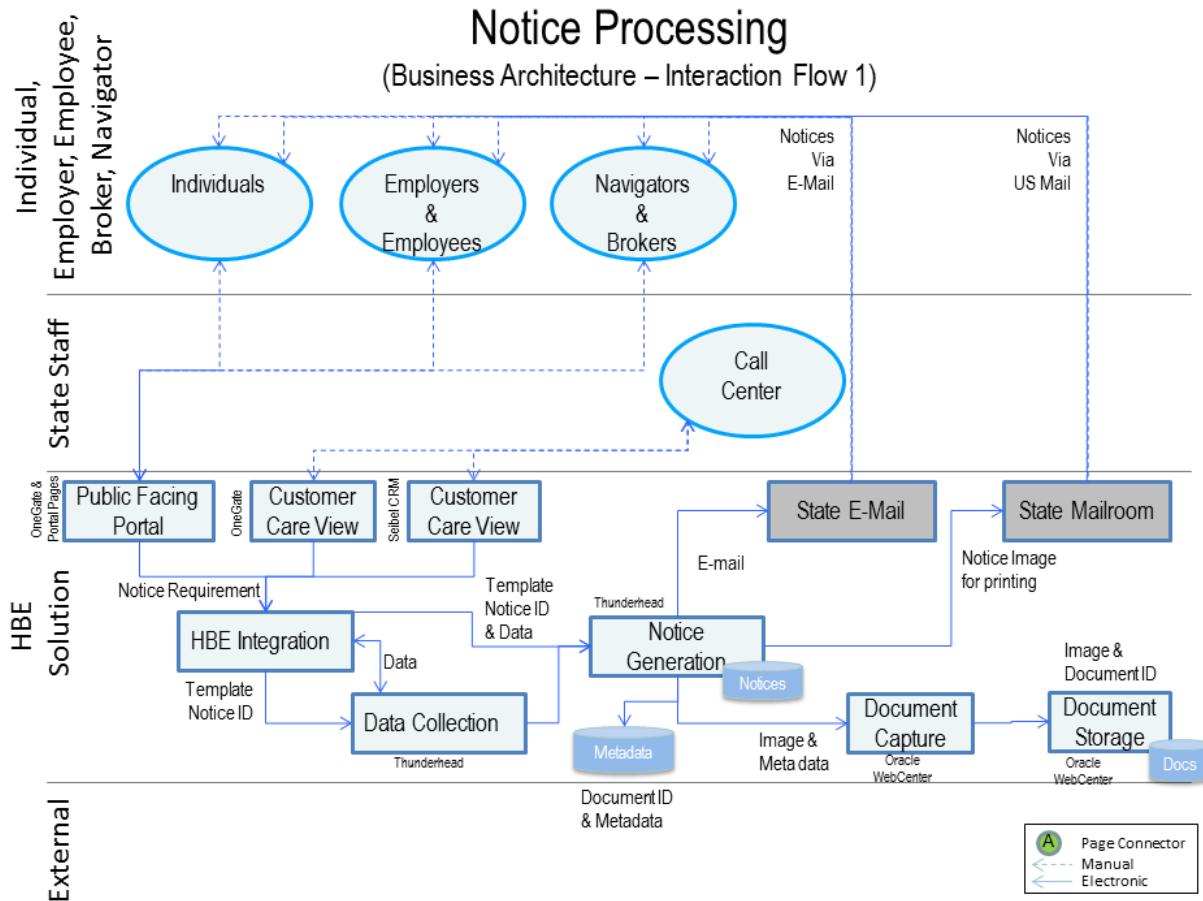


15.22 Scenario 20: Reporting

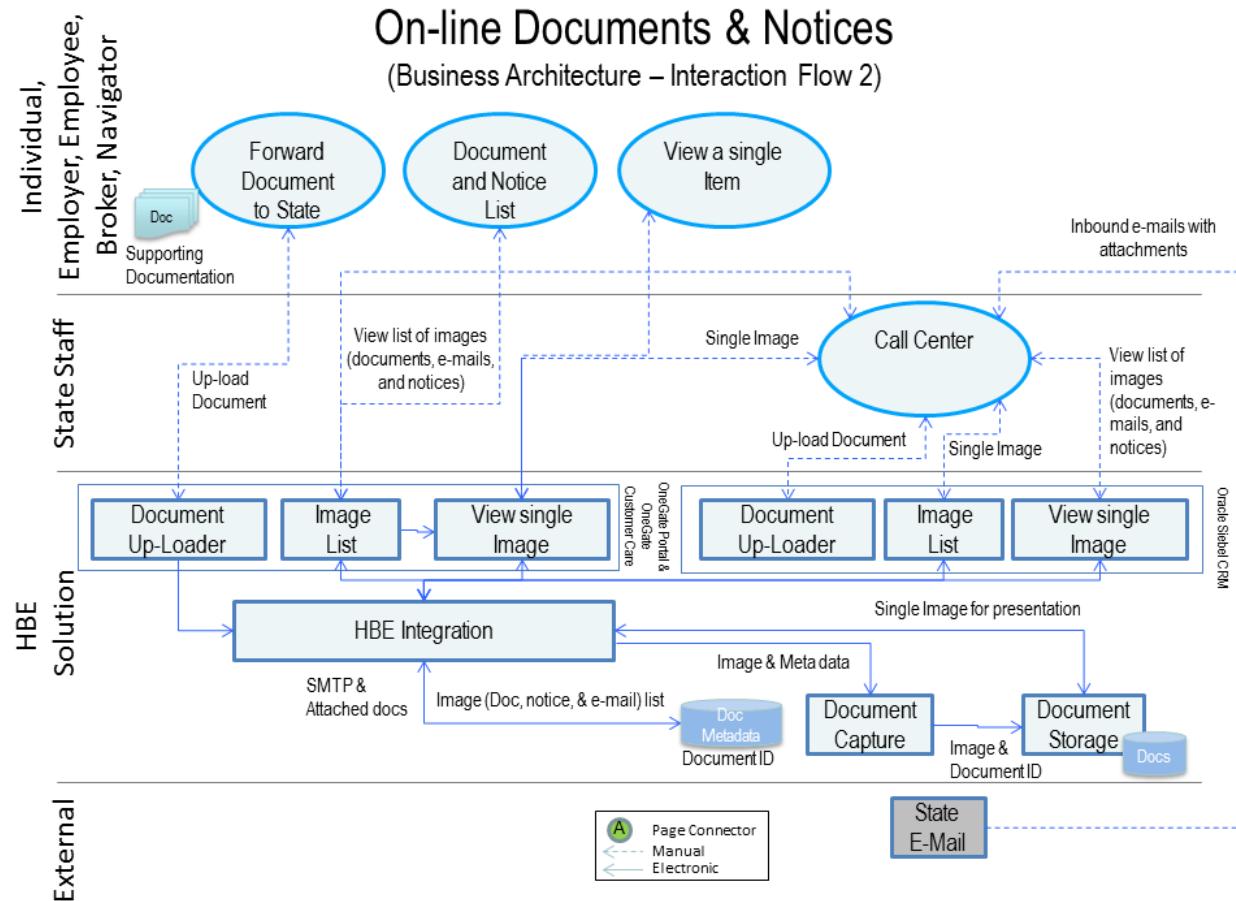




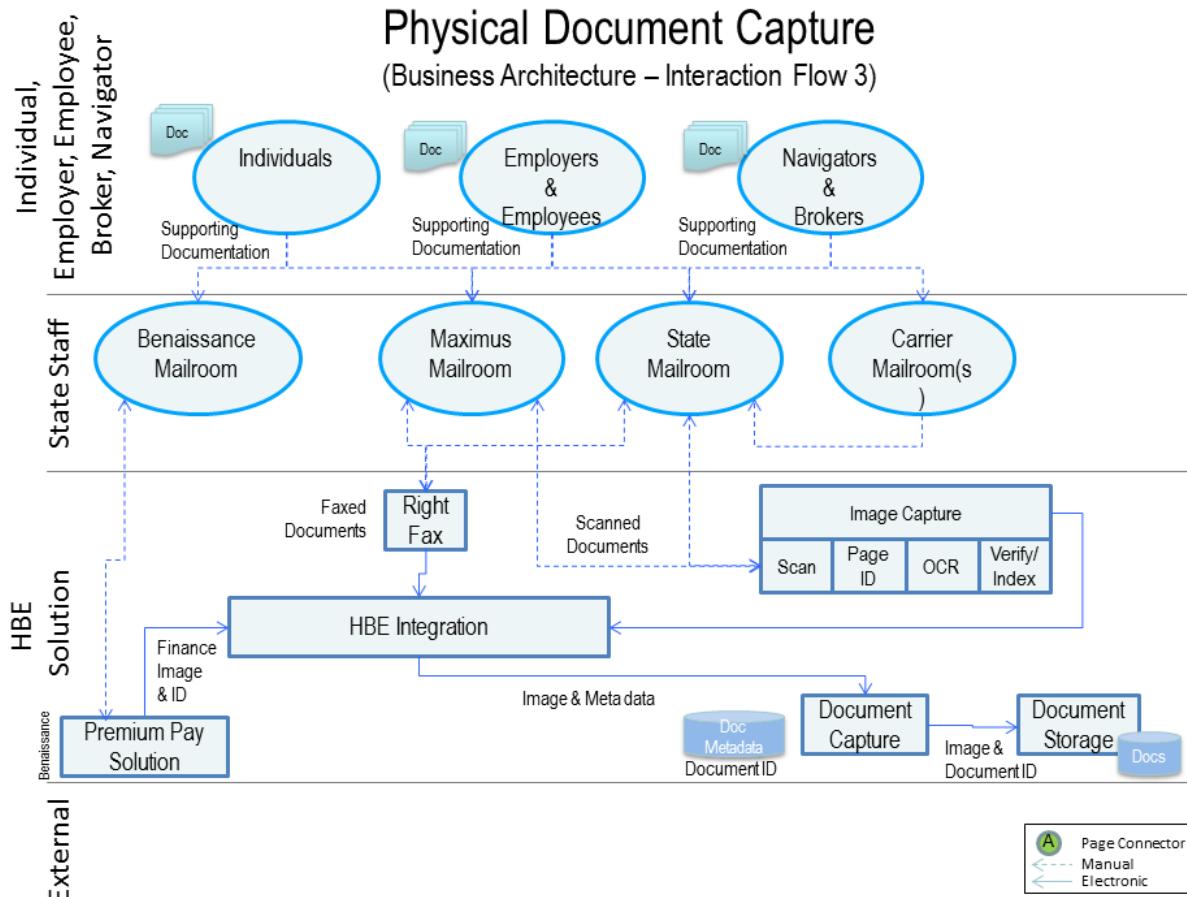
15.23 Scenario 21: Notice Processing



15.24 Scenario 22: On-line Documents and Notices



15.25 Scenario 23: Physical Document Capture



16 Detailed Design

The following sections provide the detailed designs for the VT HBE solution.

16.1 Hardware Detailed Design

The VT HBE will be hosted in CGI Federal Cloud. The following section will provide the detailed design for the VT HBE environments. As the system is currently being designed/configured, the following will focus on the detailed Hardware Design for the Development, Test, and Training environments and the Staging, Production, and DR environments will be addressed in the next version of this deliverable.

16.1.1 Development Environment

Exhibit 49: Development Environment

Virtual Machine	vCPU	Memory (GB)	Local Disk (GB)	SAN	Virtual Machine	vCPU	Memory (GB)
vthix1devweb01	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1devweb02	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1devweb03	4	8	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1devweb04	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1devweb05	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	Windows 2008 R2
vthix1devapp01	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp02	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp03	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp04	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp05	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp06	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp07	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp08	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp09	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp10	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp11	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp12	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp13	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp14	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devapp15	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	Windows 2008 R2
vthix1devapp16	2	4	40GB	(/u01 - 50GB)	(/u02 - 100GB)	1	
vthix1devapp17	4	12	40GB	(/u01 - 50GB)	(/u02 - 950GB)	1	
vthix1devdb01	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	

Virtual Machine	vCP U	Memory (GB)	Local Disk (GB)	SAN	Virtual Machine	vCPU	Memory (GB)
vthix1devdb02	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1devdb03	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	

16.1.2 Testing Environment

Exhibit 50: Testing Environment

Virtual Machine	vCP U	Memory (GB)	Local Disk (GB)	SAN	Virtual Machine	vCPU	Memory (GB)
vthix1tstweb01	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1tstweb02	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1tstweb03	4	8	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1tstweb04	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1tstweb05	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	Windows 2008 R2
vthix1tstapp01	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp02	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp03	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp04	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp05	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp06	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp07	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp08	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp09	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp10	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp11	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp12	4	8	80GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp13	4	8	80GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp14	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstapp 15	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	Windows 2008 R2
vthix1tstdb01	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstdb02	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1tstdb03	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	

16.1.3 Training Environment

Exhibit 51: Training Environment

Virtual Machine	vCPU	Memory (GB)	Local Disk (GB)	SAN	Virtual Machine	vCPU	Memory (GB)
vthix1trnweb01	2	4	40GB	(/u01 -50GB)	(/u02 - 30GB)	1	
vthix1trnweb02	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1trnweb03	4	8	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1trnweb04	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	
vthix1trnweb05	2	4	40GB	(/u01 - 50GB)	(/u02 - 30GB)	1	Windows 2008 R2
vthix1trnapp01	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp02	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp03	8	16	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp04	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp05	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp04	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp05	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp06	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp07	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp08	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp09	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp10	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp11	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp12	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp13	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp14	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trnapp15	2	4	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trndb01	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trndb02	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trndb03	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trndb02	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	
vthix1trndb03	12	32	40GB	(/u01 - 50GB)	(/u02 - 50GB)	1	

16.1.4 Client Backup /Recovery Requirements (by host):

Exhibit 52: Client Backup / Recovery Requirements (by host)

Host	Type	Schedule	Comments
All Hosts (excluding VMware Host)	Incremental Backup	Daily	Daily incremental all Hosts DB Host daily to include exports from DB as a file on local storage of Host.
	Full Backup	Weekly	Weekly Full all Host DB Host weekly to include a full export from DB as a file on local storage of DB Host. 30-day retention for these backups

16.1.5 All Network Devices to be Configured

Exhibit 53: All Network Devices to be Configured

Site	Function	Make/Model/OS if to be added	Name (if exists)	Comments
PDC	Firewall	Fortinet (cloud)		VDOM config
SDC	Firewall	Fortinet (cloud)		VDOM config
VT #1 - Montpelier	Firewall	Fortinet 80C		NEW Setup
VT #2 – South Burlington	Firewall	Fortinet 80C		NEW Setup
Midlands	Firewall	Fortinet 80C		NEW Setup
Lenexa	Firewall	Fortinet 80C		NEW Setup

16.1.6 Site Information

Exhibit 54: Site Information

Site Name	Area Code/Prefix (NPA/NXX)	Address of Demarcation Point	Site Contact Name	Site Contact Telephone Number	Site Contact E-mail Address
PDC (CGI Cloud)	480-496	10007 South 51st Street Phoenix, AZ 85044	TBD	TBD	TBD
SunGard (CGI Cloud)	215-351	1500 Spring Garden Philadelphia, PA 19130	TBD	TBD	TBD
VT #1 (State of Vermont)	802-223	1 National Life Drive, Montpelier, VT 05604	TBD	TBD	TBD
VT #2 (State of Vermont)	802-862	21 Gregory Drive, Suite 165, South Burlington, VT 05403	TBD	TBD	TBD
Midlands (Benaissance)	402-339	11425 South 84th Street Papillion, NE 68046	TBD	TBD	TBD
Lenexa (Benaissance)	913-410	14500 West 105th Street Lenexa, KS 66215	TBD	TBD	TBD

16.1.7 MPLS Circuit End Points (include both circuits if redundant)

Exhibit 55: MPLS Circuit End Points

Site Name	Bandwidth	Circuit	With or Without WAN Encryption of Traffic?	Site Name
PDC	10 Mbps	DS3		
SunGard	10 Mbps	DS3		
VT #1	10 Mbps	DS3		
VT #2	10 Mbps	DS3		
Midlands	3 Mbps			
Lenexa	3 Mbps			

16.1.8 Physical Server and Virtual Machine VLAN Assignment

Exhibit 56: Physical Server and Virtual Machine VLAN Assignment

Site	Server Name (if using a hypervisor, list VMs underneath)	Physical Switch Port Count	Virtual Switch Port Count	Access or Trunk Port	VLAN Name (if exists) or VLAN Function
PDC	PHX-CUS-ESX01	2		Trunk	Prod Web Prod App
		1		Trunk	TSM/NAS PVLAN
	PHX-CUS-WEBVM		2	Access	Prod Web
			1	Access	TSM/NAS PVLAN
	PHX-CUS-APPVM		2	Access	Prod App
			1	Access	TSM/NAS PVLAN
PDC	PHX-CUS-DB01	2		Access	Prod DB
		1		Access	TSM/NAS PVLAN

16.1.9 VMware Host Management Firewall requirements VMware Management

The VMware host management and firewall requirements will be provided in the *VT HBE Solution Install Guide* at the time of completion.

16.2 Software, Security, Performance, Internal Communication, and System Integrity Controls Detailed Design

As the system is currently being designed/configured, these sections will be addressed in a future version of this deliverable.

17 External User Interfaces

There are two classes of external interfaces provided by the VT HBE system; the facilities and mechanisms for human interaction and the electronic integration facilities for interfacing with external systems.

- Human Interfaces

The two “doorways” into the Exchange for human users are the LifeRay Portal and the Siebel interface screens. LifeRay is the sole “public” interface, consisting of JSP-based portlet pages that provide content for creating an account, applying for coverage, determining eligibility, reviewing, selecting and enrolling in a plan, and paying premiums.

Access to the Portal is via a set of proxy servers that protect the internal systems layers, and provide the means for scalability and performance throttling.

LifeRay is designed as the sole pathway for application processing. Once an applicant completes his or her application and submits it, all data collected are merged with Siebel, which becomes the final system of record.

The population of LifeRay users includes:

- ▶ Individuals and employees, who use the Portal to register an account, browse plans, determine their eligibility for the Exchange as well as financial assistance, enroll in coverage and optionally pay their premiums.
- ▶ Employers, who register small company plans and provide the means for their employees to enroll in coverage.
- ▶ Navigators, agents, brokers, customer service representatives and Vermont state staff, all of whom in one fashion or another assist or represent an applicant or enrollee in some fashion.

Siebel, as the ultimate repository, provides a rich object model that maintains account and plan data, tracks premiums and payment transactions, and provides for ongoing configuration and maintenance activities.

The human interface for Siebel is best viewed as a “non public”, limited access interface, provided essentially for support or technical staff. These roles consist of:

- ▶ Customer service representatives who may need to view details and transactional logs not available on the Portal
- ▶ State staff, as they manage account and plan data through the Siebel informational screens

Note that both interfaces communicate with the rest of the system components via the intermediary layer of SOA Suite composites. Both LifeRay and Siebel utilize a rich population of web services, both inbound and outbound to other VT HBE components.

▪ **External System Interfaces**

The VT HBE Exchange carries out its functionality with the participation of numerous external partners, from whom data are received and to whom data are sent. The Exchange partners, in general, are:

- ▶ CMS, as the Federal Data Services Hub (FDSH), provides twenty-one distinct services in three families of functionality – verification, reporting and benefit calculation.
- ▶ State of Vermont insurance carriers, providing Plan Data to the federal facilitator (SERFF), enrolling individuals and households into those plans and acknowledging premium payments.
- ▶ SERFF, who facilitates carrier plan data and loads those plans to the VT HBE
- ▶ Benaissance, the premium processor for the VT HBE, accepts, manages and disburses premium payments from enrollees
- ▶ The State of Vermont itself, whose many corollary benefit systems as well as its financial system needs integration with VT HBE data

Virtually all interfaces as described above take the form of an exchange of web services, particularly those related to logical transactional operations – verifications, enrollments and payments. As depicted in Figure 13, external interfaces are directed and handled by a logical architectural layer called the “External Service Layer”. This provides a one-to-one set of service definitions that in turn are integrated with the internal system through an “Integration Layer” which ultimately provides information to and from the LifeRay portal or Siebel. In this way, no internal system component ever reaches outside the system – these system touchpoints are managed through a secure and monitored system layer.

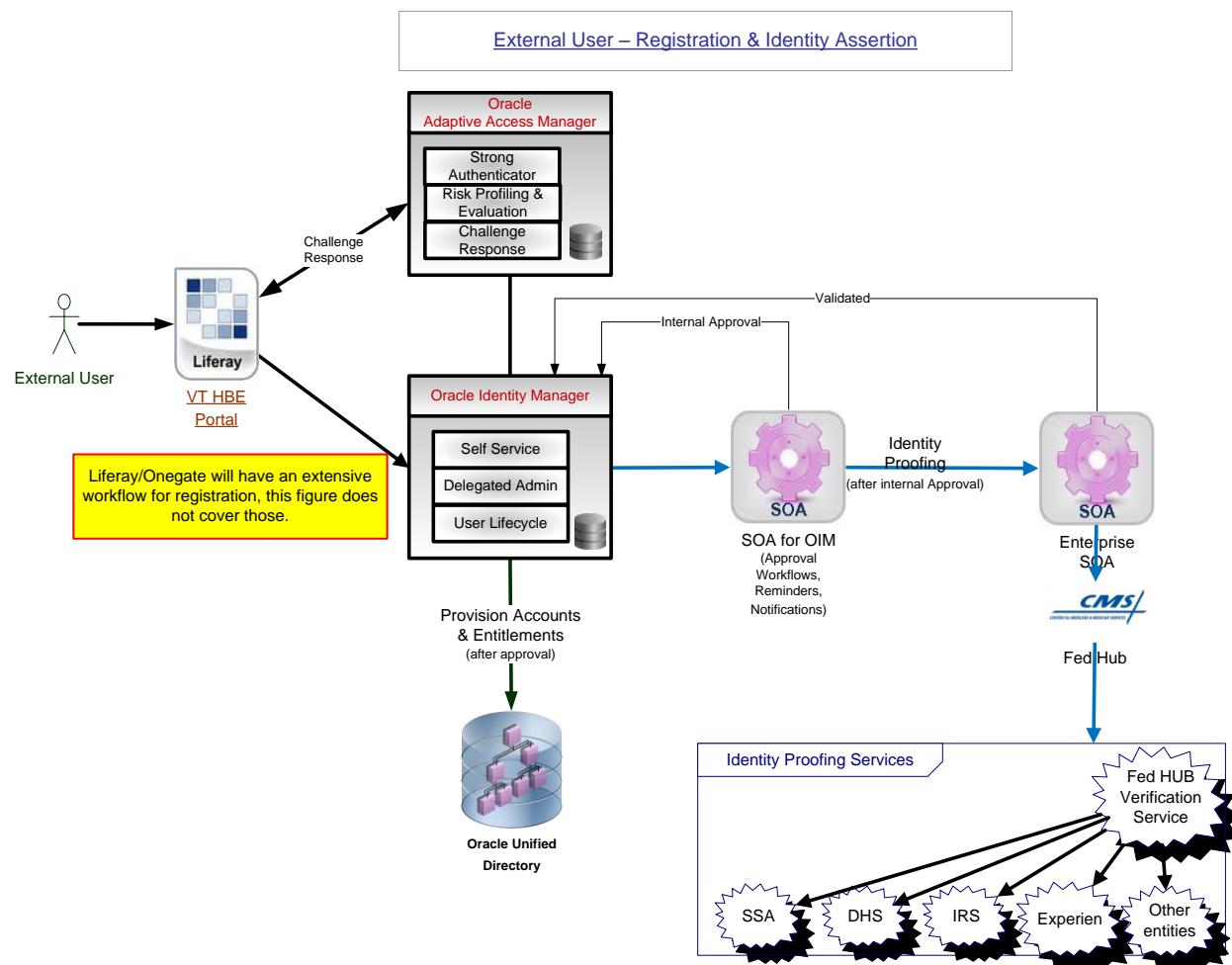
The framework for this integration sits on top of the Oracle Service Bus and provides a set of configurable components, including adapters and integration services that manage protocol, transport, security, logging, audit, monitoring, and other integration services.

18 Oracle User Account and Identity Management Workflows

18.1 Logical Architecture

This section illustrates the Logical Architecture for various IDAM Services as implemented for VT HBE Program.

18.1.1 External User Registration



Goal in context:

This flow explains the registration of an external user on the VT HBE portal. The external user is a first time user. The flow includes the sequence of events that need to be performed for the user's account to be setup in the system before enrollment.

Actors:

External Users, Approvers, CMS Federal Hub.

Main Flow:

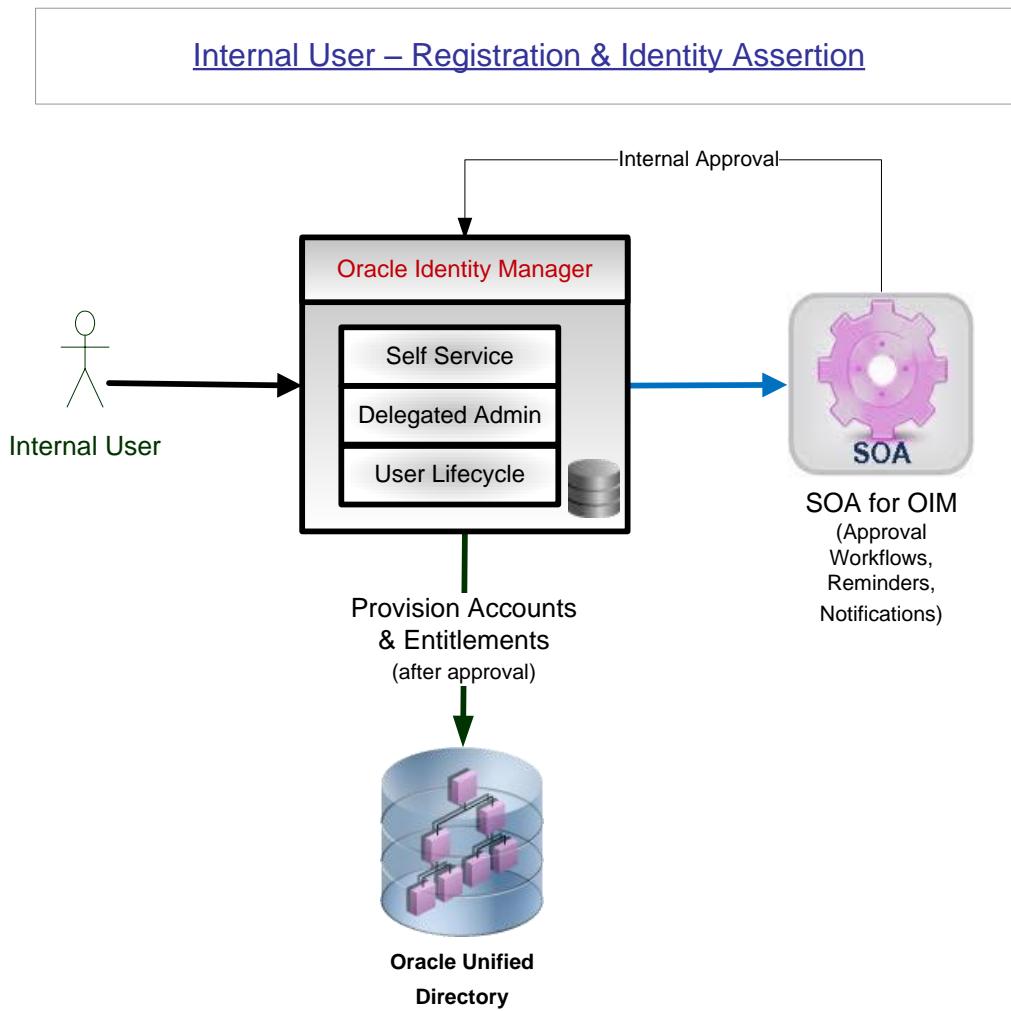
1. The system displays the homepage of VT HBE portal.

2. External user clicks on the “Create Account” button.
3. The webgate intercepts the request, detects that the user is unauthenticated, and redirects the user to the “Oracle Access Manager Credential Collector Login Page” containing a "Register New Account" link.
4. On selecting this link, the user is securely redirected to “Oracle Identity Manager Login Page”. User clicks on the hyperlink “New User Registration”.
5. User is presented with the “User Registration” form for data to be entered. The form is divided into different sections for “Basic Information” like firstname, lastname and email address, “Credentials” like User ID and Password and “Challenge Questions and Answers” like mother’s maiden name etc.
6. In cases where the VT HBE application domains may be configured to use the “OAAM Advanced” authentication scheme. Oracle Access Manager (OAM) forwards the control to the Oracle Adaptive Access Manager (OAAM) so that the user can setup the challenge questions and associated answers to be used for strong authentication.
7. Approval workflows are configured, once approved the user account is created by Oracle Identity Manager (OIM).
8. A user account is created by Oracle Identity Manager in the OIM DB. User account is also provisioned to Oracle Unified Directory (OUD).
9. User is shown a confirmation screen stating that the user has been registered and needs to login with the new credentials.
10. The external user enters the username and password. Clicks on “Sign In”. The external user is authenticated by the Oracle Access Manager (OAM) against Oracle Unified Directory (OUD). After authentication, user is taken through the enrollment process.
11. Once the User has entered required data for enrollment, they are presented with the “External Verification” screen and proceeds through the ID Proofing process of the CMS Federal Hub for Identity Proofing.
12. Once ID Proofing is completed, user record is updated for the same.
13. System provides a confirmation message.

Success End Condition:

External user is created in Oracle Identity Manager, Registered and Enrolled in the VT HBE system.

18.1.2 Internal User Registration



Goal in context:

This flow explains the registration of an internal user. An internal user logs in through the Oracle Identity Manager (OIM) web console. The flow includes the sequence of events that need to be performed for the user's account to be setup in the system. (Assumption: OIM web console is used for this use case. OIM client is also available for this purpose)

Actors:

Internal Users, Approvers.

Main Flow:

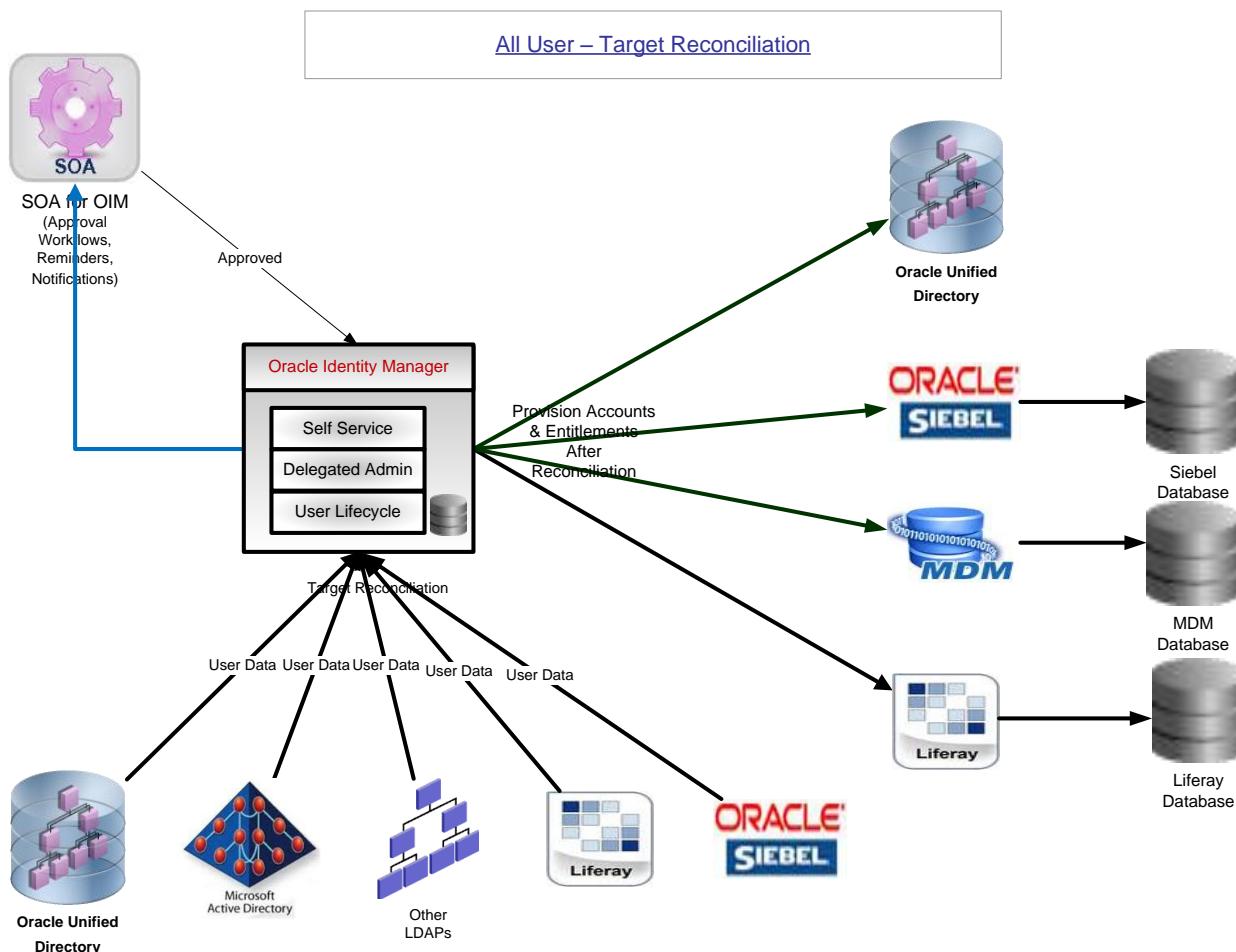
1. User invokes the Oracle Identity Manager (OIM) web console.
2. The system displays the “Oracle Identity Manager Login Page”. User clicks on the hyperlink “New User Registration”.

3. User is presented with the “User Registration” form for data to be entered. The form is divided into different sections for “Basic Information” like firstname, lastname and email address, “Credentials” like User ID and Password and “Challenge Questions and Answers” like mother’s maiden name etc.
4. Approval workflows are configured, once approved the user account is created by Oracle Identity Manager (OIM).
5. A user account is created by Oracle Identity Manager in the OIM DB. User account is also provisioned to Oracle Unified Directory (OUD).
6. User is shown a confirmation screen stating that the user has been registered and needs to login with the new credentials.
7. The internal user enters the username and password. Clicks on “Sign In”. The Internal User is authenticated by the Oracle Access Manager (OAM) against Oracle Unified Directory (OUD).

Success End Condition:

Internal User is created in Oracle Identity Manager.

18.1.3 User Reconciliation – Target Reconciliation



Goal in context:

This flow explains the reconciliation of user's data between Oracle Identity Manager and targets like Oracle Unified Directory, Siebel, MDM and Liferay databases.

Preconditions:

External User has been registered and enrolled using the VT HBE portal. Internal users have been created in OIM.

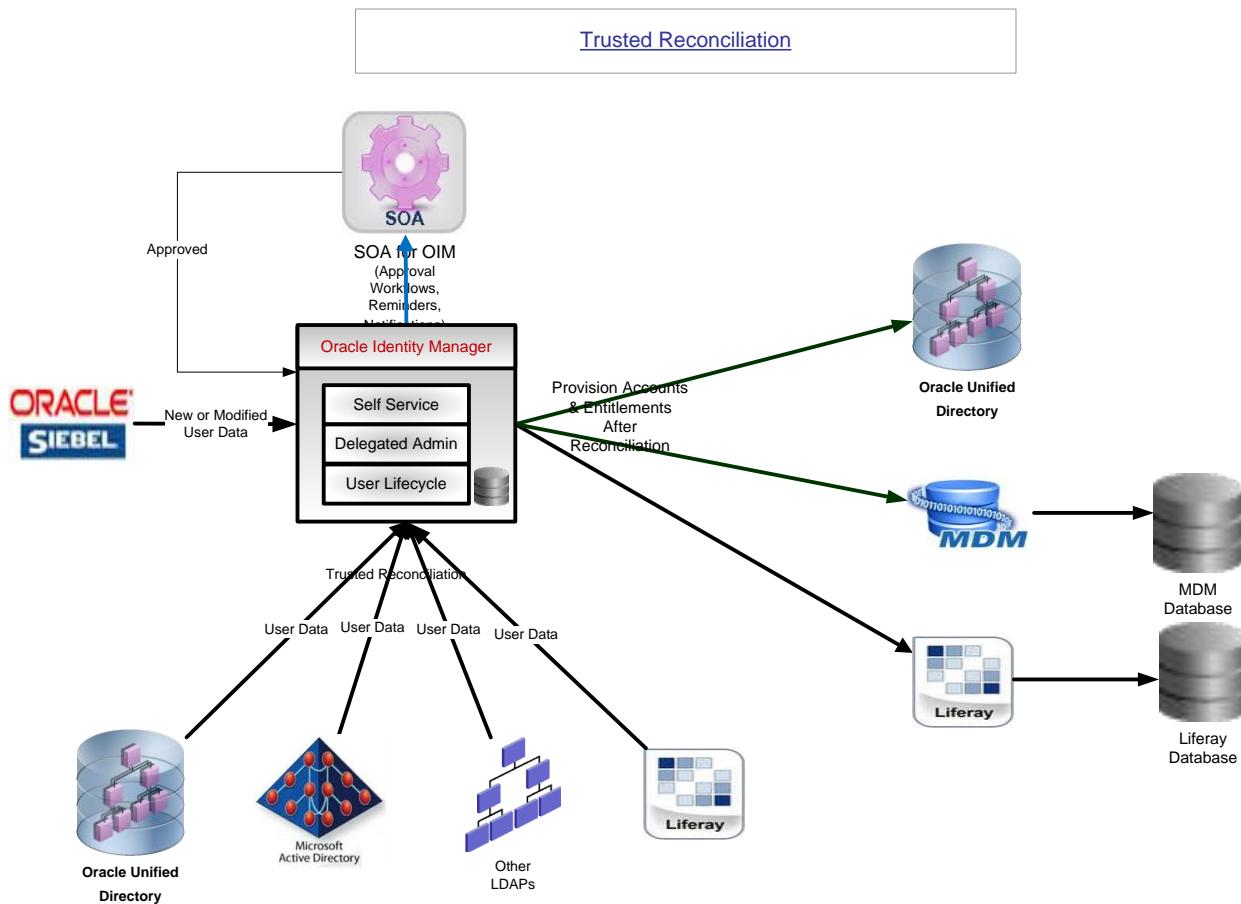
Main Flow:

1. Reconciliation process compares user data in Oracle Identity Manager with Oracle Unified Directory (OUD), Siebel, MDM DB and Liferay database. Oracle Identity Manager (OIM) reconciles the modifications to the user accounts based on reconciliation schedules.
2. Oracle Identity Manager (OIM) compares user records and identifies attributes which were updated in Liferay and other user stores.
3. Oracle Identity Manager (OIM) compares User's attributes with OIM DB.
4. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are also configured in OIM.
5. After approval, Oracle Identity Manager (OIM) updates modified user's attributes in OIM DB and then provisions modified user accounts and entitlements to Oracle Unified Directory, Siebel, MDM and Liferay database.

Success End Condition:

User accounts in Oracle Identity Manager and Oracle Unified Directory are reconciled with the different data stores like Oracle Unified Directory, Siebel, MDM DB and Liferay databases.

18.1.4 User Reconciliation – Trusted Reconciliation



Goal in context:

This flow explains the reconciliation of select external user's data between trusted authoritative sources like Siebel and Oracle Identity Manager as well as targets like Oracle Unified Directory, MDM and Liferay databases.

Actors:

Approvers

Preconditions:

External user like Brokers and Navigators has been registered and enrolled using the VT HBE portal.

Main Flow:

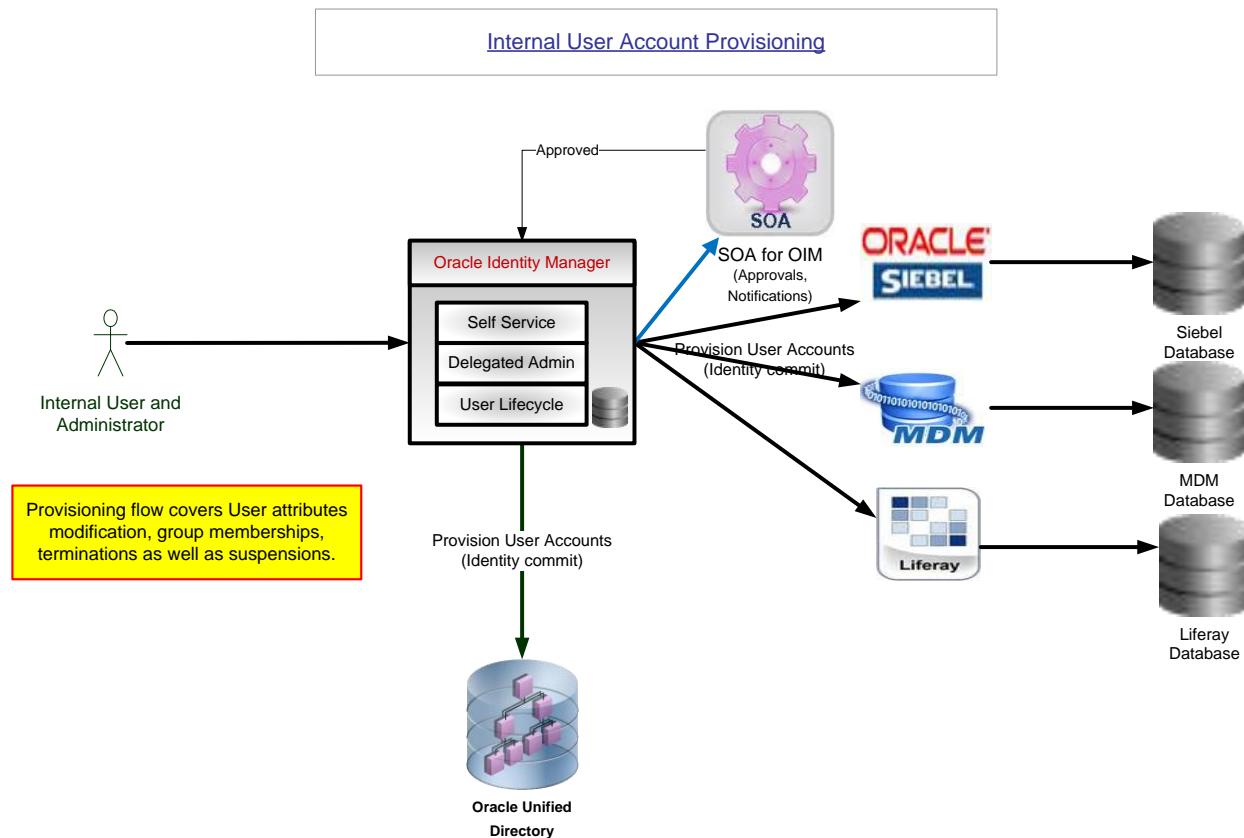
1. Reconciliation process compares user data in Siebel CRM with Oracle Identity Manager, Oracle Unified Directory (OUD), MDM DB and Liferay database. Oracle Identity Manager (OIM) reconciles the modifications to the user accounts based on reconciliation schedules.
2. Oracle Identity Manager (OIM) compares user records and identifies attributes which were added or updated in Siebel CRM (and not through the VT HBE portal).

3. Oracle Identity Manager (OIM) compares user's attributes in Siebel with the ones in OIM DB and identifies the incremental changes to be made.
4. Oracle Identity Manager (OIM) manages approvals (when necessary) for these changes. Approval workflows are also configured in OIM.
5. After approval, Oracle Identity Manager (OIM) updates modified user's attributes in OIM DB and then provisions modified user accounts and entitlements to Oracle Unified Directory, MDM and Liferay databases.

Success End Condition:

User accounts added and/or modified in Siebel CRM are reconciled with Oracle Identity Manager and different data stores like Oracle Unified Directory, MDM, and Liferay databases.

18.1.5 Internal User Account Provisioning



Goal in context:

This flow explains the account provisioning of an Internal User to Oracle Unified Directory (OUD), the Siebel Database, MDM Database and the Liferay Database. User's data like groups, roles etc. are provisioned to OUD, User accounts are provisioned to the target systems like Siebel, MDM and Liferay.

Actors:

Internal Users and Administrators

Preconditions:

Internal user has been registered by Oracle Identity Manager (OIM).

Main Flow:

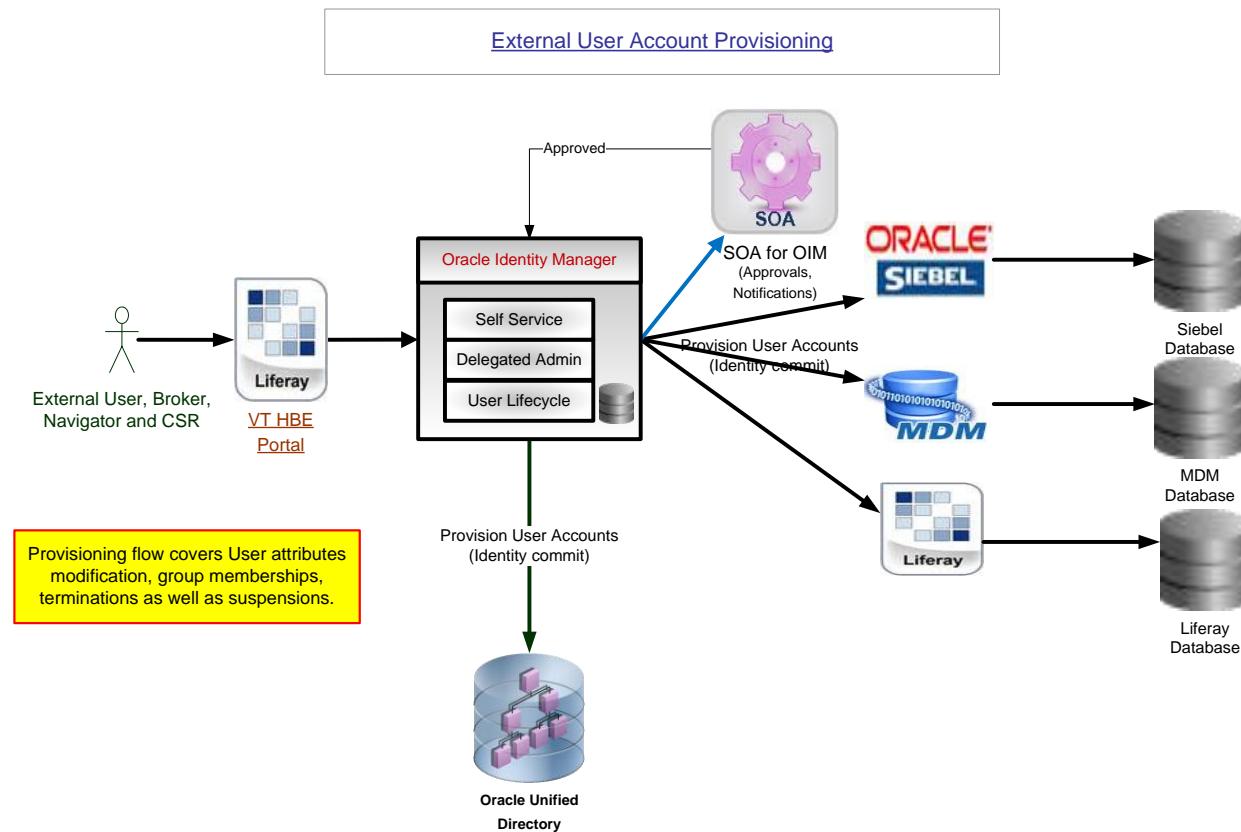
1. A registered Internal User/ Administrator logs in to the Oracle Identity Manager (OIM) to make modification to the user attributes. User Groups/Roles are some (not all) of the attributes which may be modified.
2. User account modification includes user attribute changes, transfers to another group or department and user suspension or deletion.
3. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).

4. After approval by designated approvers, Oracle Identity Manager (OIM) provisions the modified user accounts and entitlements to the Oracle Unified Directory (OUD).
5. The Oracle Identity Manager (OIM) provisions the modified user accounts to the Oracle Unified Directory (OUD), Oracle Siebel Database, MDM Database and the Liferay Database.

Success End Condition:

User accounts are provisioned by OIM to Oracle Unified Directory (OUD) and the target resources.

18.1.6 External User Account Provisioning



Goal in context:

This flow explains the user account provisioning of an External User to Oracle Unified Directory (OUD), the Siebel Database, MDM Database and the Liferay Database. User's data like roles etc. are provisioned to OUD, User accounts are provisioned to the target systems like Siebel, MDM and Liferay.

Actors:

External Users, Brokers, Navigators and Customer Service Representatives (CSR)

Preconditions:

External user has been registered using VT HBE portal.

Main Flow:

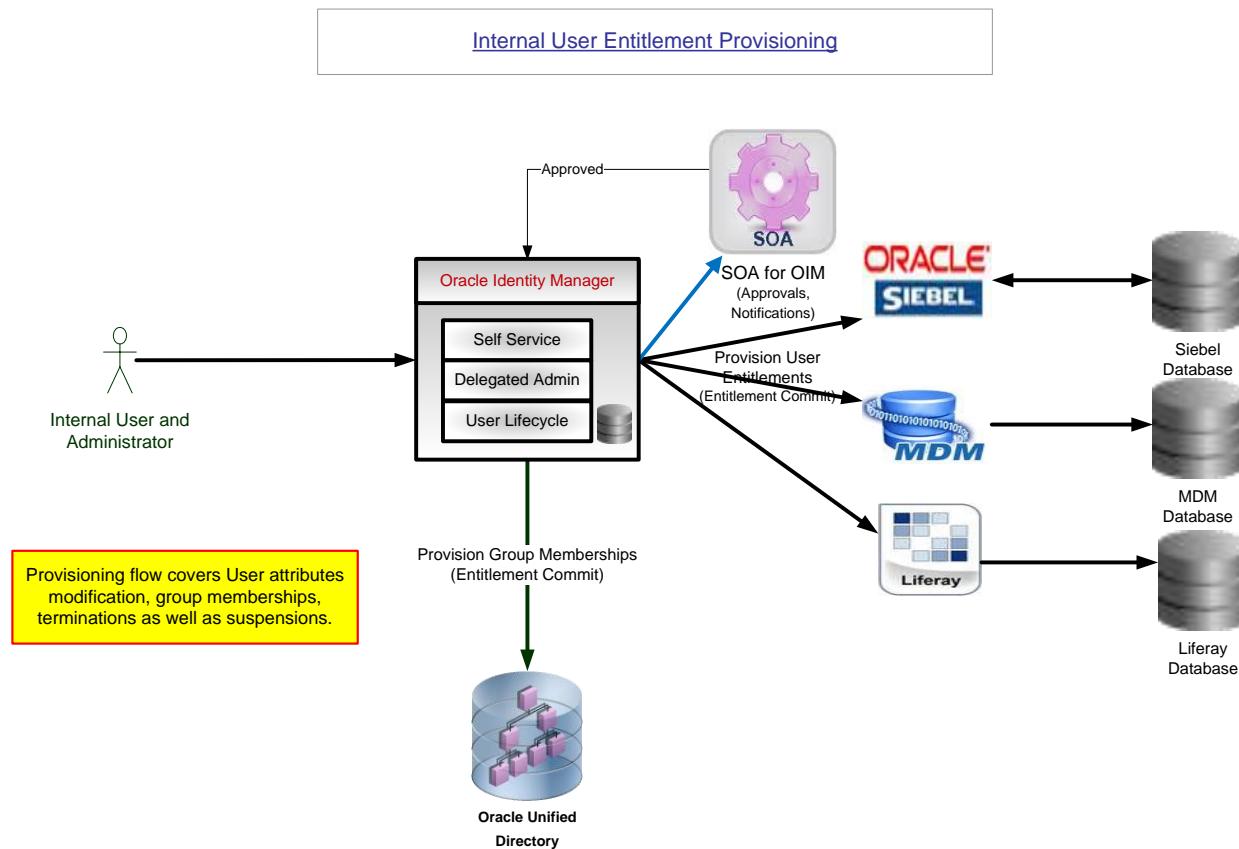
1. Registered user's attributes are changed (by the user or a Broker or a Navigator or a Customer Service Representative (CSR)). User groups or Roles are some (not all) attributes which are modified.
2. User account modification includes user attribute changes, role change and user suspension or deletion.
3. OIM validates user attributes in Oracle Virtual Directory (OVD) against the data modified.

4. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).
5. After approval by designated approvers, Oracle Identity Manager (OIM) provisions the modified user accounts and entitlements to the Oracle Unified Directory (OUD), Oracle Siebel Database, MDM Database and the Liferay Database.

Success End Condition:

User accounts are provisioned by OIM to Oracle Unified Directory (OUD) and the target resources.

18.1.7 Internal User Entitlements Provisioning



Goal in context:

This flow explains the user entitlements provisioning to Oracle Unified Directory (OUD), the Siebel Database, MDM Database and the Liferay Database for an Internal User. User data like groups, roles, access permissions etc. are provisioned to OUD, Entitlements are provisioned to the target systems like Siebel, MDM and Liferay.

Actors:

Internal Users and Administrators

Preconditions:

Internal user has been registered by Oracle Identity Manager (OIM).

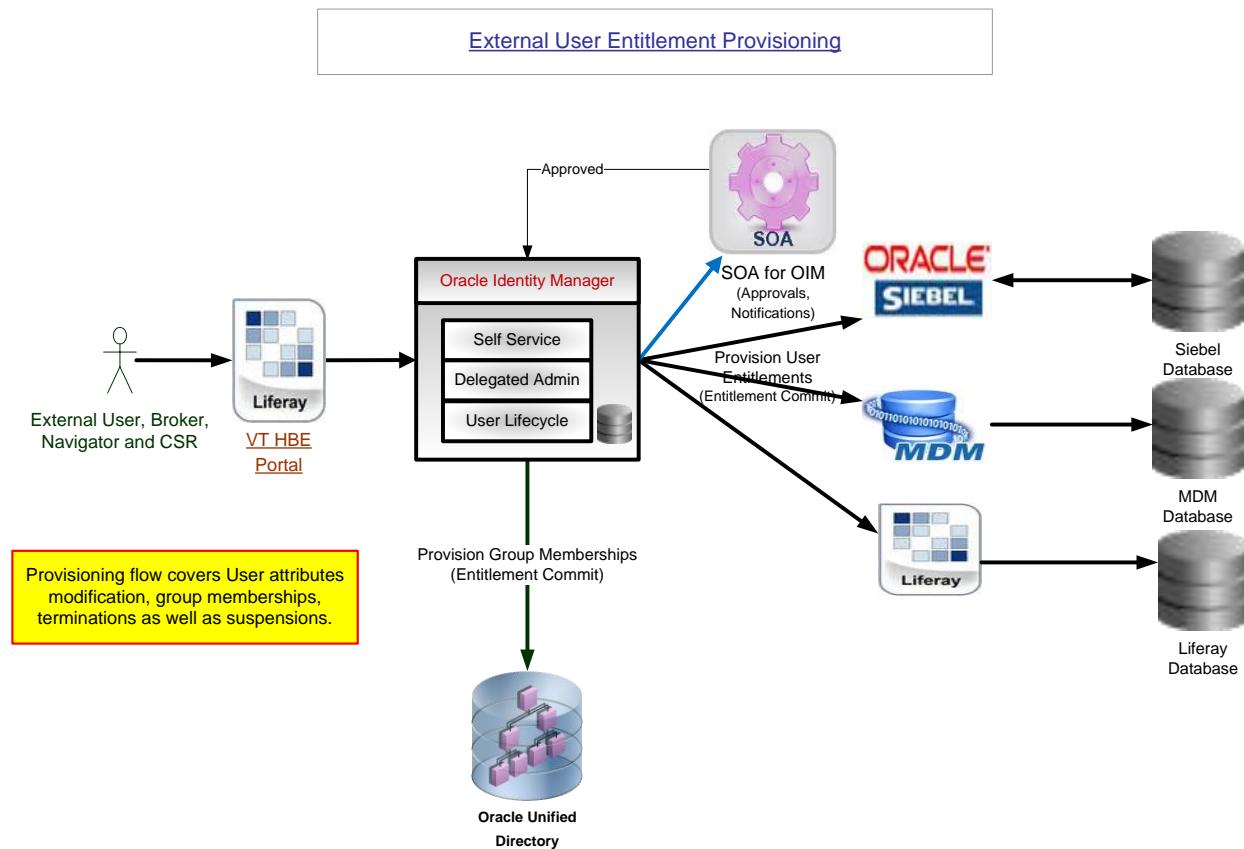
1. Registered user's entitlements are changed (by the user or an administrator). User groups, access permissions, departments are some (not all) attributes which may be modified.
2. OIM validates user entitlements in Oracle Virtual Directory (OVD) against the data modified by the user or administrator.
3. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).

4. After approval by designated approvers, Oracle Identity Manager (OIM) provisions the modified user accounts and entitlements to the Oracle Unified Directory (OUD), and target resources like Oracle Siebel Database, MDM Database and the Liferay Database.

Success End Condition:

User entitlements are provisioned by OIM to Oracle Unified Directory (OUD) and the target resources.

18.1.8 External User Entitlements Provisioning



Goal in context:

This flow explains the user entitlements provisioning to Oracle Unified Directory(OUD), and target resources like Siebel Database , MDM Database and Liferay Database for an External User. User's data like groups, roles, access permissions etc. are provisioned to OUD. Entitlements are provisioned to the target systems like Siebel, MDM and Liferay.

Actors:

External Users, Brokers, Navigators and Customer Service Representatives (CSR)

Preconditions:

External user has been registered using VT HBE portal.

Main Flow:

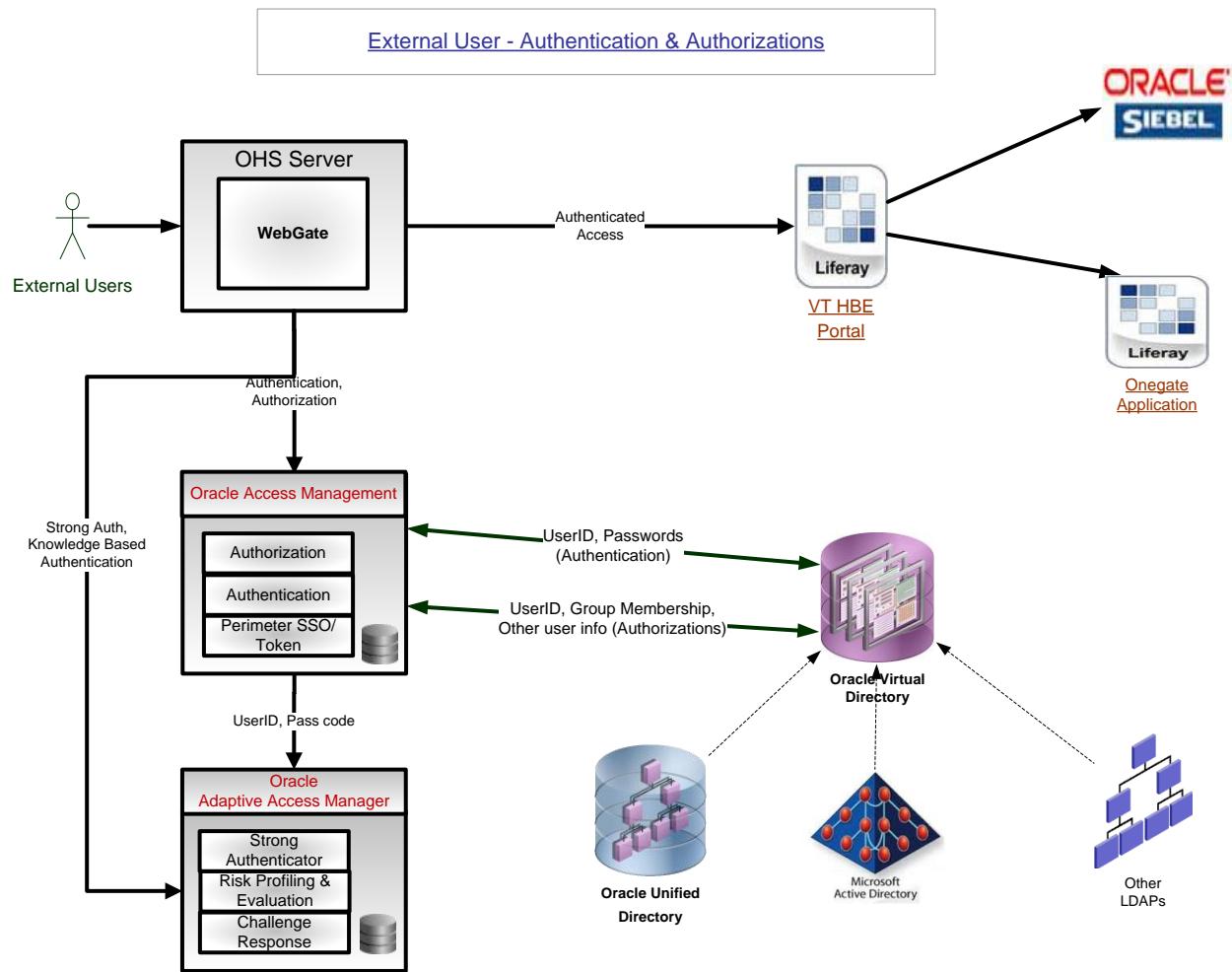
1. Registered user's entitlements are changed (by the user or a Broker or a Navigator or a Customer Service Representative (CSR)). User groups, access permissions, departments are some (not all) attributes which may be modified.
2. User entitlements modification includes user attribute changes, role change and user suspension or deletion.
3. OIM validates user attributes in Oracle Virtual Directory (OVD) against the data modified.

4. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).
5. After approval by designated approvers, Oracle Identity Manager (OIM) provisions the modified user accounts and entitlements to the Oracle Unified Directory (OUD), Oracle Siebel Database, MDM Database and the Liferay Database.

Success End Condition:

User entitlements are provisioned by OIM to Oracle Unified Directory (OUD) and the target resources.

18.1.9 External User Authentication and Authorization



Goal in context:

This flow explains the External user authentication and authorization workflow.

Actors:

External Users

Preconditions:

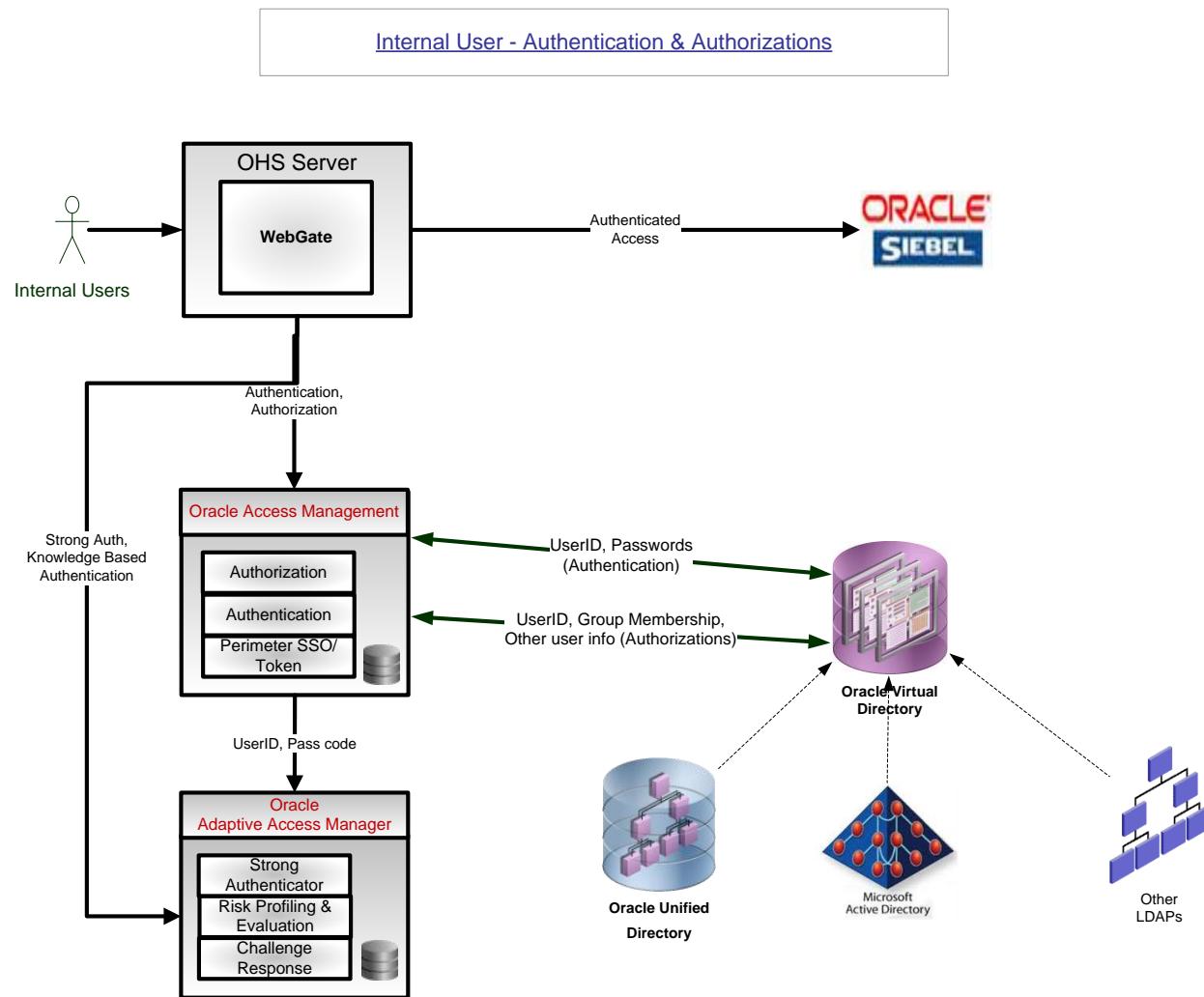
External user is registered through the VT HBE portal.

Main Flow:

1. Registered user accesses the VT HBE portal to enroll, view or modify their information. User chooses appropriate role (Individual, Employer, Broker, Navigator etc.) to login.
 2. User is prompted with an IDM login page, user enters credentials and clicks on submit. User credentials are submitted to Oracle Access Manager (OAM) system for Authentication and Authorization.

3. VT HBE system requires the users to undergo additional strong authentication for certain tasks as well as for certain users. Oracle Adaptive Access Manager (OAAM) system is one of the systems providing Strong Authentication for VT HBE.
4. If required, OAAM system prompts the user to enter additional credentials (as configured) and validates these. User access succeeds only after successfully authenticating against OAM and OAAM (when applicable).
5. On successful authentication, the users request is checked against their entitlements for authorization. On Authorization, if applicable, a SSO token is issued and this is cached in the Web Browser until expiry.
6. After successful authorization, the user is allowed to proceed to perform their desired operations on the VT HBE portal.
7. On subsequent access attempts, user would be allowed to access the portal without having to authenticate until expiry of the SSO token.

18.1.10 Internal User Authentication and Authorization



Goal in context:

This flow explains the External user authentication and authorization workflow.

Actors:

External Users

Preconditions:

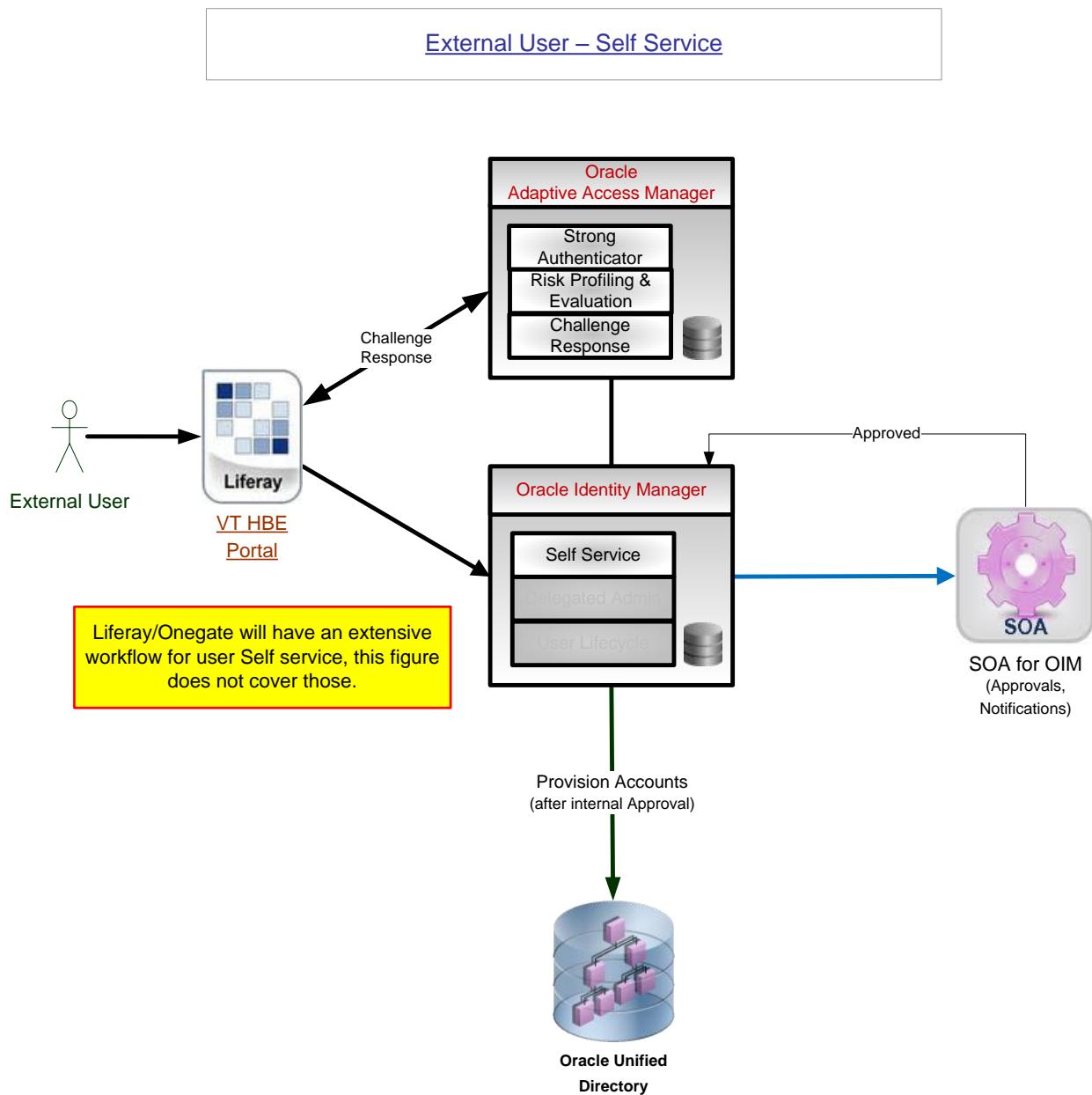
External user is registered through the VT HBE portal.

Main Flow:

1. Registered user accesses the VT HBE portal to enroll, view or modify their information. User chooses appropriate role (Individual, Employer, Broker, Navigator etc.) to login.
2. User is prompted with an IDM login page, user enters credentials and presses submit. User credentials are submitted to Oracle Access Manager (OAM) system for Authentication and Authorization.

3. VT HBE system requires the users to undergo additional strong authentication for certain tasks as well as for certain users. Oracle Adaptive Access Manager (OAAM) system is one of the systems providing Strong Authentication for VT HBE.
4. If required, OAAM system prompts the user to enter additional credentials (as configured) and validates these. User access succeeds only after successfully authenticating against OAM and OAAM (when applicable).
5. On successful authentication, the users request is checked against their entitlements for authorization. On Authorization, if applicable, a SSO token is issued and this is cached in the Web Browser until expiry.
6. After successful authorization, the user is allowed to proceed to perform their desired operations on the VT HBE portal.
7. On subsequent access attempts, user would be allowed to access the portal without having to authenticate until expiry of the SSO token.

18.1.11 External User Self Service



Goal in context:

This flow explains the “Self Service” feature available to External users to manage his/her account on the VT HBE portal. Three different options are available, they are;

1. Forgot Password?
2. Forgot User Login?
3. My Account

Actors:

External User

Preconditions:

External user has been registered.

Main Flow – Forgot Password?

1. External user accesses the VT HBE portal's homepage. User enters the UserID but is unable to authenticate, clicks on the "Forgot Password?" link.
2. If the user has configured his/her email Id, an email is sent to the user's email account with instructions for resetting the password.

Else

If the user has not configured his/her email Id, a set of "challenge questions" which were configured by the user during registration is displayed and the user is asked to answer these. On answering these questions correctly, the user may setup a new password.

3. OIM provisions the new password to Oracle Unified Directory (OUD).
4. User is brought back to the login screen so that user may provide credentials to login to the portal.

Alternate Flow 1 – Forgot User Login?

1. External user accesses the VT HBE portal's homepage. User has forgotten the UserID and hence is unable to authenticate, clicks on the "Forgot User?" link.
2. If the user has configured his/her email Id, an email is sent to the user's email account with their User ID.

Else

If the user has not configured his/her email Id, a set of "challenge questions" which were configured by the user during registration is displayed and the user is asked to answer these. On answering these questions correctly, the user is shown his/her User ID.

3. User is brought back to the login screen so that user may provide credentials to login to the portal.

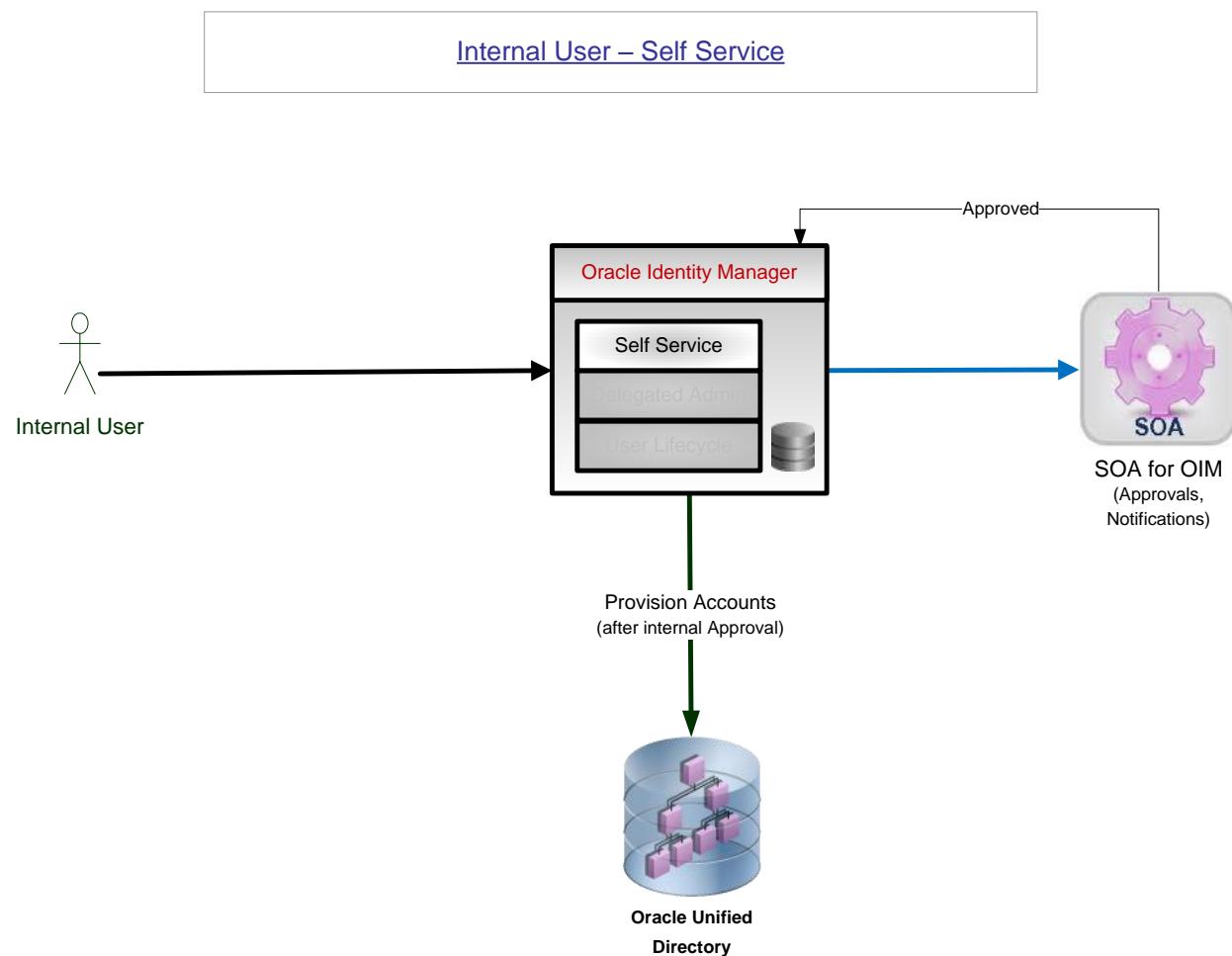
Alternate Flow 2 – "My Account"

Preconditions: Registered external users has authenticated successfully and logged into the HBE Portal.

1. External user accesses the VT HBE portal's homepage. User clicks on the "My Account" link.
2. User modifies attributes which need to be changed. User submits changes.
3. VT HBE system requires the users to undergo additional strong authentication for certain users. Oracle Adaptive Access Manager (OAAM) system is one of the systems providing Strong Authentication for VT HBE.
4. If required, OAAM system prompts the user to enter additional credentials (as configured) and validates them. User modification succeeds only on successful authenticating with OAAM.
5. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).

6. After approval by designated approvers, Oracle Identity Manager (OIM) provisions the modified user accounts to the Oracle Unified Directory (OUD)

18.1.12 Internal User Self Service



Goal in context:

This flow explains the “Self Service” feature available for Internal Users to manage his/her account on the VT HBE portal. Three different options are available, They are

1. Forgot Password?
2. Forgot User Login?
3. My Account

Actors:

Internal user

Preconditions:

Internal user has been registered.

Main Flow – Forgot Password?

1. Internal user accesses Oracle Identity Manager (OIM). User enters their UserID but is unable to authenticate, clicks on the “Forgot Password?” link.
2. If the user has configured his/her email Id, as email is sent to the user's email account with instructions for resetting the password.
Else
If the user has not configured his/her email Id, a set of “challenge questions” which were configured by the user during registration is displayed and the user is asked to answer these. On answering these questions correctly, the user may setup a new password.
3. OIM provisions the new password to Oracle Unified Directory (OUD).
4. User is brought back to the login screen so that user may provide credentials to login.

Alternate Flow 1 – Forgot User Login?

1. Internal user accesses Oracle Identity Manager (OIM). User has forgotten their UserID and hence is unable to authenticate, clicks on the “Forgot User?” link.
2. If the user has configured his/her email Id, as email is sent to the user's email account with their User ID.
Else
If the user has not configured his/her email Id, a set of questions which were configured by the user during registration is displayed and the user is asked to answer these. On answering these questions correctly, the user is shown his/her User ID .
3. User is brought back to the login screen so that user may provide credentials to login.

Alternate Flow 2 – “My Account”

Preconditions: Registered users has authenticated successfully into Oracle Identity Manager (OIM).

1. Internal user accesses Oracle Identity Manager (OIM). User clicks on the “My Account” link.
2. User modifies attributes which need to be changed. User submits changes.
3. Oracle Identity Manager (OIM) manages approvals (when necessary). Approval workflows are configured in Oracle Identity Manager (OIM).
4. After approval by designated approvers, Oracle Identity Manager(OIM) provisions the modified user accounts to the Oracle Unified Directory (OUD)

19 Purchased Oracle Software

Oracle Database and Options

- Oracle Database Enterprise Edition
- Real Application Clusters
- Advanced Security
- Oracle Active Data Guard
- Diagnostics Pack
- Tuning Pack
- Change Management Pack
- Provisioning and Patch Automation Pack for Database
- Configuration Management Pack for Oracle Database
- Business Intelligence Publisher
- Oracle Data Masking Pack
- Database Vault

Oracle Policy Automation

- Oracle Policy Modeling
- Oracle Policy Automation
- Oracle Policy Automation Connectors for Siebel

Siebel CRM

- Siebel Public Sector CRM Base Option
- Siebel CRM Base
- Siebel Tools
- Siebel Public Sector Partner Portal
- Siebel Public Sector eService
- Siebel Partner Manager
- Siebel Financial Services CRM Base Option
- Siebel Test Automation Interfaces
- Siebel CTI
- Siebel Smart Answer Connector
- Siebel Remote Client
- Siebel Data Quality
- Siebel Email Response
- Siebel Field Service
- Siebel Smart Answer for Service
- Siebel HelpDesk Option
- Siebel CRM Web Channel for Customers - up to 15 Objects
- Siebel Individual Coverage
- Siebel Group Policies
- Oracle Real-Time Scheduler

Oracle Application Integration

- Oracle Application Integration Architecture Foundation Pack
- Siebel Field Service Integration to Oracle Real-Time Scheduler
- Oracle Customer Master Data Management Integration Option for Siebel CRM

Oracle Identity and Access Management

- Identity Analytics
- Identity and Access Management Suite Plus
- Identity Manager Connector - Database Applications Table
- Identity Manager Connector - Database User Management
- Identity Manager Connector - Microsoft Active Directory
- Identity Manager Connector - Microsoft Exchange
- Identity Manager Connector - PeopleSoft Enterprise Applications
- Identity Manager Connector - Microsoft Windows
- Identity Manager Connector - UNIX
- Identity Manager Connector - RSA Authentication Manager
- Identity Manager Connector - Siebel Enterprise Applications
- Identity Manager Connector - IBM RACF
- Management Pack Plus for Identity Management

Oracle SOA/Middleware

- Oracle Application Management Suite for Siebel
- WebLogic Suite
- SOA Management Pack Enterprise Edition
- WebLogic Server Management Pack Enterprise Edition
- SOA Suite for Oracle Middleware
- Unified Business Process Management Suite
- Audit Vault Server
- Audit Vault Collection Agent -
- Management Pack for WebCenter Suite
- WebCenter Suite - Processor Perpetual
- Enterprise Repository
- Service Registry
- Oracle WebCenter Adapter for Microsoft SharePoint for WebCenter Portal
- Oracle WebCenter Applications Adapter for Siebel
- Oracle WebCenter Suite Plus
- Healthcare Adapter
- Secure Enterprise Search
- Secure Enterprise Search Connector – Siebel
- Data Integrator Enterprise Edition

Oracle Master Data Management

- Oracle Customer Hub Data Steward
- Oracle Customer Hub B2B
- Oracle Customer Hub B2C
- Oracle Activity Hub B2B for Oracle Customer Hub B2B
- Oracle Activity Hub B2C for Oracle Customer Hub B2C
- Oracle Customer Master Data Management Integration Base Pack

Data Quality

- Oracle Data Quality Matching Server
- Oracle Data Quality Address Validation Server
- Oracle Data Quality Parsing and Standardization Server (Mfr. is Informatica Corporation, Third Party Program)
- Oracle Data Quality Profiling Server (Mfr. is Informatica Corporation, Third Party Program)
- Oracle Enterprise Data Quality Match and Merge
- Oracle Enterprise Data Quality Parsing and Standardization
- Oracle Enterprise Data Quality Profile and Audit
- Oracle Enterprise Data Quality Address Verification Server

Oracle Business Intelligence Technology and Applications

- Oracle Business Intelligence Suite Enterprise Edition Plus
- Oracle Business Intelligence Management Pack
- Informatica PowerCenter and PowerConnect Adapters
- Service Analytics Fusion Edition
- Partner Analytics Fusion Edition
- Contact Center Telephony Analytics Fusion Edition
- Case Management Analytics Fusion Edition
- Financial Analytics Fusion Edition
- Human Resources Analytics Fusion Edition

Oracle Tutor and UPK

- Oracle Tutor
- Oracle UPK Developer and Users

Oracle GRC

- Oracle Governance, Risk, and Compliance Manager

20 Requirements Validation and Design Approach

The following sections describe the method and approach for the development of the Vermont Health Connect solution, beginning with Requirements Validation through Design and Transition to Development.

20.1 Requirements Validation

The Vermont Health Connect began with Requirements Validation (RV) sessions. The process included:

- Review of the D-14 Functional Requirements (previously named the Requirements Traceability Matrix (Functional Requirements)):
 - ▶ Determination of requirements that were valid for Vermont
 - ▶ Determination of requirements that were not applicable to Vermont such as Plan Management
 - ▶ Determination of missing requirements needed for Vermont
- Establishment of the Vermont Functional Requirements
- Requirements during this phase were categorized on the Functional Requirements list as Met, Open, Validated, Duplicated, Deleted or Deferred. Definition of these categorizations for this phase include:

Requirement Status	Final Status for RV Phase	Description
Met	Yes	Current in COTS product and could be demonstrated
Open	No	Questions outstanding concerning functionality necessary to meet requirement
Validated	No	Agreed upon understanding of the functionality necessary to meet the requirement
Duplicated	Yes	Documented as a duplicate of another requirement (requirements linked with one being the primary and the other associated to it)
Deleted	Yes	Agreed upon in RV session that functionality is not required
Deferred	Yes	Functionality is not needed until after January 1, 2014

Upon completion of the RV sessions and the finalization of the Functional Requirements, the Functional Requirements was submitted to the State of Vermont (SOV) for approval. The Requirements Specification Document (RSD) was created to document the common understanding of the requirements. The RSD incorporated the Functional Requirements.

Both the RSD and the Functional Requirements were uploaded into the SmartBear ALMComplete (ALM) automated tracking tool. ALM became the system of record and is under configuration management control.

For more information about the requirements process, refer to the deliverable D-15 Requirements Specification Document. For more information about the requirements, refer to the deliverable D-14 Functional Requirements.

20.2 Design

20.2.1 Mutual Working Sessions

For requirements with a category other than Met, the Functional Team met with (SOV) Business Leads and their teams to review slices of functionality and to flush out the Vermont-specific configurations, workflows, and customizations required or desired by SOV.

As open questions were answered to the satisfaction of the SOV and the Functional Team, “Open” requirements were moved to “Validated”. Updates were recorded in ALM.

New releases of OneGate and the details of Siebel (the underlying case management solution) were reviewed. In this process requirements categorized as “Validated” were moved to “Met” in cases where the functionality of the requirement could now be demonstrated. Updates were recorded in ALM.

20.2.2 Capabilities and Features

Customization requests were recorded on the Capabilities and Features spreadsheet. The Capabilities and Features spreadsheet is updated and shared with the SOV Business and Policy teams weekly. Capabilities and Features that require a Level of Effort (LOE) are entered into the formal Change Request process.

20.2.3 Design Sessions

Design sessions were held to document the workflows, configurations, business rules, roles and responsibilities, and new screen designs for the remaining Validated requirements.

Functional Specification Documents (FSD) have been drafted to discuss and detail Validated requirements. The FSDs are included in this D-18 System Design Document (SDD).

The FSD includes:

FSD Content

This FSD describes the programmatic and project requirements to meet the needs of the Vermont Health Connect (VHC).

This document addresses the requirements that need further discussion, and details the design approach for these requirements. Requirements that are categorized as “Met” are listed in the Requirements Addressed Exhibits but are not discussed in detail in this document because they do not require configuration or customization.

This document defines the workflow or the configuration required for the commercial off the shelf (COTS) products, or the specifications for new design. This document also outlines what is needed by the end user(s), the constraints, assumptions, technical requirements, and requested inputs and outputs. This document specifies what the solution is expected to “Do” and “How” user(s) will interact with it.

FSD Topics

Functional Specification Documents development tasks listed in the Master Project Management Plan:

Task Name
Eligibility
Functional Specification Document Drafting
Overview

Task Name
Account Creation
Application Electronic
Application Paper
Verifications
Eligibility Determination
Web Portal
Functional Specification Document Drafting
Web Portal
Enrollment
Functional Specification Document Drafting
Enrollment
Disenrollment
Change of Circumstance
Plan Management
Functional Specification Document Drafting
Plan Upload
Plan Details
Plan/Issuer Decertification
Noticing
Functional Specification Document Drafting
Overview Approach
Catalogue
Design Samples
Small Business
Functional Specification Document Drafting
SB Account Creation and Enrollment
SB Disenrollment
SB Renewal
SB Enrollment and Infor Reconciliation 834
SB Enter Navigator and Broker
SB User Name and Password Reset
SB Paper Application
Customer Service
Functional Specification Document Drafting
Case Management - Customer
Case Management - Admin
Reporting
Functional Specification Document Drafting
Overview Approach

Task Name
Catalogue
Design Samples
Premium Processing and Financial Management
Functional Specification Document Drafting
Portal Payments and Payment Account Setup
Premium Processing Individual
Premium Processing Small Business
Premium Processing Issuers
Premium Processing cross walk to other areas
Addendum - Federal APTC and CSR
Addendum - Vermont State Premium Assistance and CSR
Addendum - Hierarchy of Payments
Addendum - Change of Circumstance as it relates to Payments
Portal Payment History
Call Center Payment History
Access to Images
Financial Reporting
General Ledger - Vision System
Aggregated Premium Reconciliation
Issuer Remittance Reconciliation
CSR Annual Reconciliation

Requirements Traceability

Definitions for Requirements during the Design phase were categorized on the D-14 Functional Requirements document as; Met, Open, Validated, Duplicated, Deleted or Deferred. Definitions for these categorizations for this phase include:

Requirement Status	Final Status for Design Phase	Description
Met	Yes	Current in COTS product and could be demonstrated, current in product release 3.2.1 or 3.2.2. Functionality in Siebel could be demonstrated – configurations detailed and understood. Screen mock-ups demonstrated – design agreed.
Open	No	Questions outstanding concerning functionality necessary to meet requirement (for example, Business rules for Vermont Subsidy not fully defined)
Validated	No	Agreed upon understanding of the functionality necessary to meet the requirement – cannot be satisfied with product or mockup designs at this time.
Duplicated	Yes	Documented as a duplicate of another requirement (requirements linked with one being the primary and the other associated to it).
Deleted	Yes	Agreed upon in RV session that functionality is not required.

Requirement Status	Final Status for Design Phase	Description
Deferred	Yes	Functionality is not needed until after January 1, 2014.

20.3 Transition Design to Development

Upon completion of the initial set of FSDs, the functional team will meet with the technical team to discuss the FSDs and further detail the technical solutions needed to meet the functional requirements. It is anticipated that during these sessions we will uncover gaps in the FSDs and requirements that require further elaboration.

20.3.1 FSD Refinement

Through the development of the FSDs, the functional team will discover requirements that are Validated for which there is an incomplete design solution. These issues will become agenda items for additional design meetings with the SOV business leads. During these sessions the solution will be further elaborated, additional Validated requirements will be moved to Met, all remaining Open items will be resolved and additional technical needs will be identified.

Requirements traceability will be managed through ALM.

Version #2 of the FSDs will be created where required.

The SDD will be updated accordingly.

20.3.2 Requirements Traceability

Definitions for Requirements during the Transition from Design to Development phase are categorized on the D-14 Functional Requirements deliverable as; Met – Final, Duplicated, Deleted or Deferred.

Definitions for these categorizations for this phase include:

Requirement Status	Final Status for Transition Design to Development Phase	Description
Met - Final	Yes	Current in COTS product and could be demonstrated, current in product release 3.2.1, 3.2.2, or 3.2.3 Functionality in Siebel could be demonstrated – configurations detailed and understood Screen mock-ups demonstrated – design agreed All design issues resolved
Duplicated	Yes	Documented as a duplicate of another requirement (requirements linked with one being the primary and the other associated to it)
Deleted	Yes	Agreed upon in RV session that functionality is not required
Deferred	Yes	Functionality is not needed until after January 1, 2014

20.3.3 Technical Mosaic

The technical teams have decomposed the Functional Requirements into a technical mosaic to identify necessary system objects (reports, notices, screens) that need to be developed. The technical teams have begun the technical design document for each. During the transition from design to development period this mosaic will be refined, informed by the FSDs and the cross functional/technical meetings.

21 Functional Specification Designs (FSD)

The Functional Specification Designs (FSD) listed in this section describe the programmatic and project requirements to meet the needs of the Vermont Health Connect (VHC).

Each FSD addresses the requirements that need further discussion, and details the design approach for the set of requirements for that functional area. Requirements that are categorized as "Met" are listed in the Requirements Addressed Exhibits, but are not discussed in detail in the FSD because they do not require configuration or customization.

The FSD defines the workflow or the configuration required for the commercial off the shelf (COTS) products, or the specifications for new design. The FSD also outlines what is needed by the end user(s), the constraints, assumptions, technical requirements, and requested inputs and outputs. The FSD specifies what the solution is expected to "Do" and "How" user(s) will interact with it.

The following FSDs are contained in this section, grouped into the functional areas listed:

- Eligibility
 - ▶ Account Creation
 - ▶ Application Electronic
 - ▶ Application Paper
 - ▶ Eligibility Determination
- Web Portal
 - ▶ Web Portal
- Enrollment
 - ▶ Enrollment
 - ▶ Disenrollment
 - ▶ Change of Circumstance
 - ▶ Individual Enrollment Information Reconciliation
- Plan Management
 - ▶ Plan Management
- Small Business
 - ▶ Application and Enrollment
 - ▶ Change Reporting
 - ▶ Disenrollment
 - ▶ Renewal
 - ▶ Enrollment and Information Reconciliation 834
 - ▶ Password Reset
 - ▶ Paper Application
- Customer Service
 - ▶ Case Management – Customer
 - ▶ Case Management - Administrative
- Premium Processing and Financial Management
 - ▶ Portal Payments and Payment Account Setup
 - ▶ Premium Processing
 - ▶ Hierarchical Allocation of Payments to Premiums
 - ▶ SOV Premium Assistance and Cost Sharing Reduction
 - ▶ Payment Discrepancies and Termination

- ▶ Portal Payment History
- ▶ Call Center Payment History
- ▶ Access to Images
- ▶ General Ledger – VISION System
- Noticing
 - ▶ Overview Approach and Catalogue
- Reporting
 - ▶ Overview Approach

21.1 Eligibility - Overview

The Vermont Health Connect (VHC) will utilize existing OneGate commercial off the shelf (COTS) functionality to meet a significant number of both Federal and State of Vermont Eligibility requirements. This includes user interface screens to guide the individual through the application process facilitating the collection of demographics, identification of household members and their corresponding relationships. The application process also enables an individual (including Navigator and Authorized User) to upload necessary verification documents. As a result of pertinent data entered by the individual and processing of the data through the OneGate rule base driven by the Oracle Policy Automation (OPA) rules engine, the individual receives an Eligibility Determination.

21.1.1 Eligibility Verification Functions

This section provides an overview of the application and verification processes. The eligibility verification function begins with an individual or their representative initiating an application through the VHC Individual and Families Portal using the Liferay portal technology, by calling the VHC Call Center, or by completing a paper application. Through an interface with the Federal Hub and/or through State verification sources, there will be three potential types of verification validation for an individual applying for benefits through the VHC.

If an application is initiated electronically through the VHC Individual and Families portal, the verification process begins following the entry of the data required by the online application, when the individual reaches the External Verification page. The first source of verification for the individual applying for benefits through the VHC are the federal source (*federal services data hub*). This process leads the individual through an external identity verification process and returns pertinent information needed for the Eligibility determination. The data is then used to process the eligibility determination by the OneGate rule base.

Secondary verification sources may be employed by the VHC from existing State of Vermont program systems, such as ACCESS.

In the event that the first two sources are not available, a manual self-attestation verification process will be employed. Corresponding verification documents required by the SOV will be uploaded and associated with the corresponding application using a combination of existing OneGate and Siebel data management functionality.

All verification data, regardless of source, will also be entered into the individual's application. The eligibility determination process rule base will execute the same rules regardless of verification source.

The paper application will utilize the self-attestation method as stated above.

To ensure federal and state verification timelines will be met, both internal and external alert and notifications functionality will be used. Reporting functionality will be used as required by federal and state law, statute, or rule.

Business Process Flow Diagrams

The OneGate eligibility workflow begins with the establishment of an individual's electronic account in the OneGate portal using standard username/password creation (*Identity Manager (IDM)*). Once the individual's account is created, they proceed to apply for health benefits through the VHC by completing an online application. Once demographic and household information has been entered into the application, the data will undergo verification through available the Federal Hub and/or State sources. In the event that the Federal Hub and/or State sources are not available, the manual process of self-attestation will be used. Once all application information has been entered and verified, eligibility determination will be received.

In the event that the individual fills out a paper application, the application will be received by the SOV document processing center, date stamped, scanned, indexed by the Oracle document management system, sent by batch interface to Siebel CRM, and routed to the appropriate worker to establish a case in Siebel. Data entered on the paper application will be manually entered into a corresponding electronic application in the VHC and the same steps followed for the electronic application will be followed so the required eligibility determination can be completed and enrollment can occur.

If an individual's electronic application is not completed prior to eligibility determination, the application will expire after 30 days and the individual will be required to begin a new instance of the application and complete the eligibility determination process. This will also require the individual to repeat verification.

Once the application is submitted, the individual will have 90 days to provide necessary verification documentation. If the verification information is not provided within the 90 days, the application will expire. Timeframe may be extended during extenuating circumstances.

If the application or verification submission period has expired, messaging and/or noticing, depending on whether the application was online or paper, will be used to make the individual aware that their application is outstanding or terminated.

The sections below contain Exhibits that illustrate process flow diagrams for each Eligibility functional area.

Requirements Traceability

Each section of the Eligibility FSDs will contain a table which illustrates the requirements associated to each process as they appear on the Vermont Requirements Traceability Matrix (RTM) now stored in ALM. The status of each requirement is noted as it was categorized during the initial design session or updated subsequently through follow-on or design session as noted. Please note that the final verbiage of the requirement will be located in the Requirements Specification Document (RSD) in ALM. Only requirements categorized as "Validated" for which functionality is being designed or configured are discussed in this list. Requirements associated to this process that are categorized as "Met" in the RTM are listed for tracking convenience.

Overall Assumptions/Constraint

The following assumptions and constraint apply to all the Eligibility functional areas:

- Account Creation and provisioning will be handled by Identity Manager
- Paper application forms will be stored in the Oracle Document Management system component.
- Verification documents supplied by individuals will be uploaded using OneGate application functionality and then stored in the Oracle Document Management system component.
- A process will be developed to notify applicants of the verification documentation deadline and necessary reapplication when applicable.
- Federal and state eligibility including MAGI, APTC, CSR, Vermont State Subsidy and CSR will be determined by the OneGate rule base.

- A background process will be developed to query the open application database and identify applications due to expire after an Individual fails to complete it within 30 days. This process will trigger corresponding messages and notifications as needed.
- Constraint - Availability of the Federal Sources Data Hub
- Known dependencies, predecessors and successors:
 - ▶ Account creation will occur prior to application creation
 - ▶ Receipt, date stamp, scanning, processing and routing will occur prior to case worker involvement with paper application
 - ▶ Data will be returned by the federal hub to the VHC as the first method of verification to comply with federal rules
 - ▶ Creation of the notification by Thunderhead NOW will occur after background process to identify expiring applications
 - ▶ Creation of the notification by Thunderhead NOW will occur making applicant aware of verification documentation deadline

Overall Functional Considerations

OneGate and Siebel will support entry of the manual verification process.

Overall Solution/Technical Considerations

The following solution and technical considerations apply to all the Eligibility FSDs:

- OneGate
- Oracle WebCenter Capture
- Siebel CRM
- Thunderhead NOW

Eligibility Functional Specification Design (sections)

The following Functional Specification Design (FSD) sections for Eligibility are included in this document:

- Account Creation
- Electronic Application
- Paper Application
- Eligibility Determination

21.1.2 Account Creation FSD

Attendee/Contributor(s) List

Name	Organization	Email
James St. Clair, Mary S, Shrini Mani, Hira	CGI Technical Team	

Account Creation Process

Business Process Diagram

The Eligibility-Account Creation Business Process describes the system functionality that facilitates handling the first steps of the user experience with the VHC. This includes: User Account Creation, Application Creation, Verifications, and Eligibility Determination. The Account Creation functional specification document describes what the user will encounter when creating their account in the VHC

portal in order to begin their application. The spec also includes functionality regarding identification and role definition of the actors who will be actively managing cases once an eligibility determination and enrollment have been completed. Account Creation functionality will be handled corporately using the Oracle Identity Management Suite.

Exhibit 57: Account Creation Business Process Flow

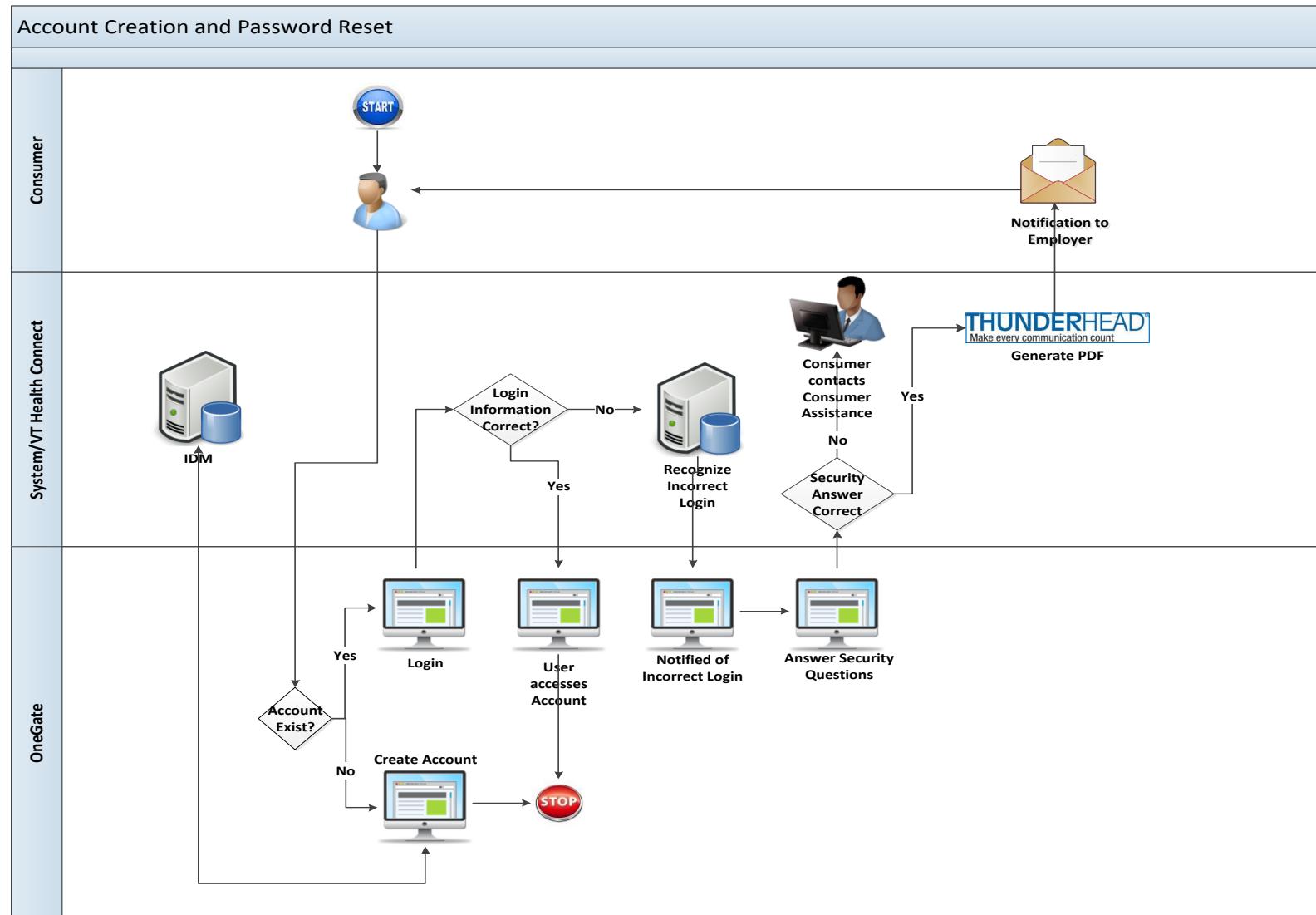


Exhibit 58: Account Creation Technical Process Flow

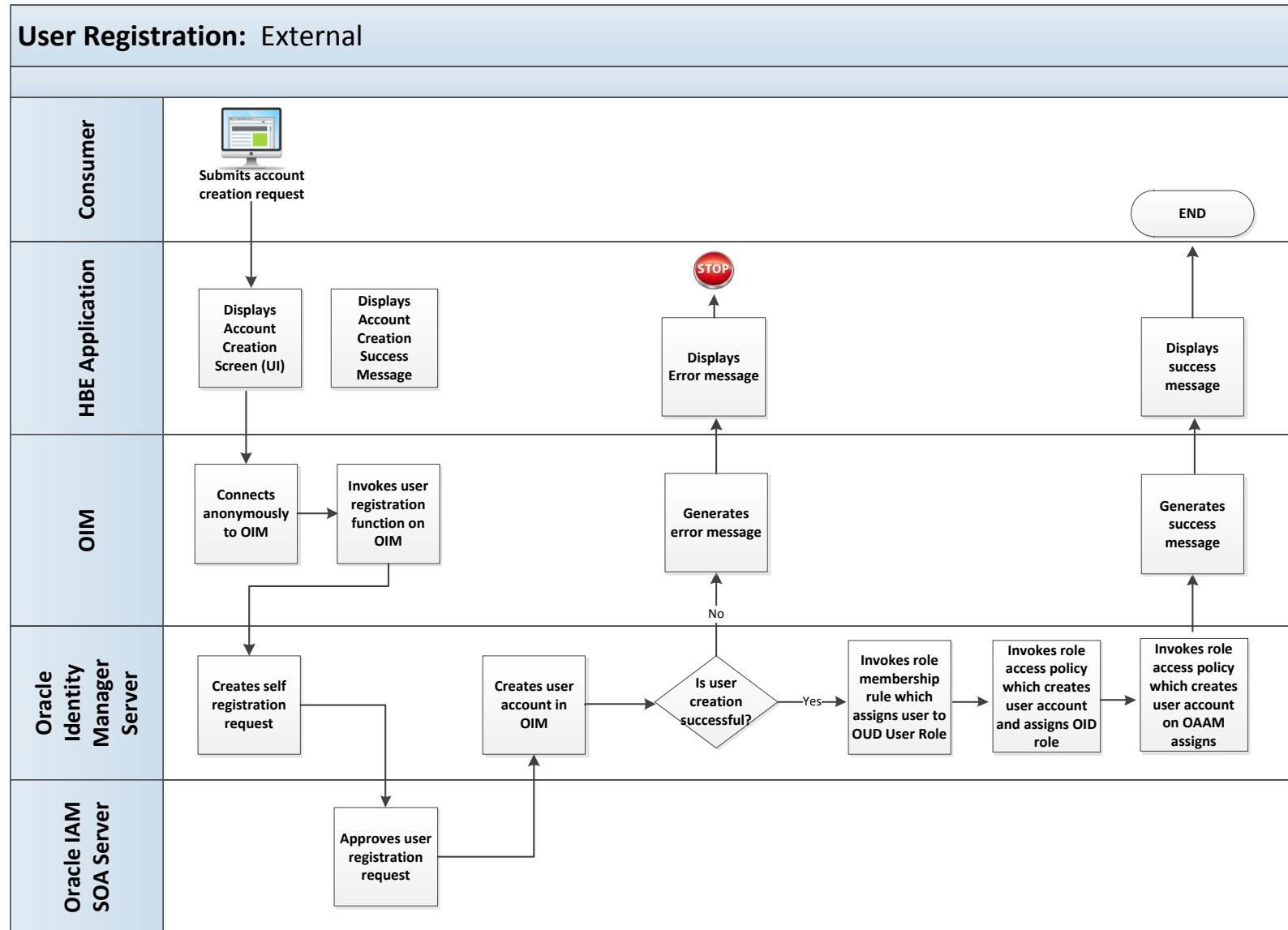


Exhibit 59: Account Creation Requirements Reviewed lists the questions identified by the testing team when the Test Case(s) were reviewed:

Exhibit 59: Account Creation Requirements Reviewed

Ref Code	Status	Responses to Test Team (Entered in ALM)
EL-01	Validated	Formal Action: Lori McBride, CGI lead to meet with state business leads; Tena Perelli, Michele Betit, Sherry May and Dana Houlihan to finalize roles and responsibilities across aggregate functional areas. Due date June 3.

Requirements Addressed

Exhibit 60: Account Creation Requirements Addressed includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 60: Account Creation Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-23	Determine if users requesting new access already have system access, assist known Individuals in recovering login information, and assist new Individuals in setting up access.	Validated	Functionality is Met by Oracle Identity Manager and is inherent in a product that includes a database.	Should Be Met
EL-72	Provide automatic checks for duplicate household members within other cases in the system.	Validated	Functionality is Met by Oracle Identity Manager and is inherent in a product that includes a database.	Should Be Met
EL-01	Provide role-based access control to allow users to perform certain operations assigned to specific roles (e.g., Exchange Staff, Individuals, Brokers, and Navigators).	Met		
EL-31	Provide the capability to identify Navigators and Brokers if they are completing applications on behalf of an Individual.	Validated	Functionality is Met by Oracle Identity Manager and is inherent in a product that includes a database.	Should Be Met
EL-44	The solution may request proof of identity from Individuals, Brokers, and Navigators (driver's license, passport) if a higher level of trust is required.	Validated	This functionality will be met at a later date if it is determined to be needed as a part of identification for the Call Center.	Should be deferred

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-25	Use a single Exchange-specified client identifier for all solution functions and interfaces, and provide cross-referencing to other system identifiers where required.	Validated	Functionality is Met by Oracle Identity Manager and is inherent in a product that includes a database.	Should Be Met

Key Assumptions and Considerations

Assumptions

Navigators and other authorized personnel will be allowed to establish accounts on the VHC for applicants they are assisting.

Note: There is an action item to finalize roles and responsibilities by June 3rd.

Functional Considerations

The following functional items must be considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the Portal with the role of individual, and a login with the appropriate role in Siebel.
- The individual must choose a role of Individual, Employee, Employer, Broker, or Navigator in order to establish an account for the VHC Portal.
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay = the VHC Portal
- Oracle Identity Management Suite

New Testing considerations

The following testing items must be considered:

- The tester must have the capability to log on as all seven identified roles in the VHC portal; Individual, Employer, Employee, Broker, Navigator, Authorized User, and Alternate Reporter. Accounts should be created prior to executing test scripts.
Note: The roles of Authorized User and Alternate Reporter will be made available in a future release.
- The tester must have the capability to login to Siebel as all identified roles as finalized by the SOV.
- Exhibit 61: Account Creation Test Conditions lists test conditions for the portal login:

Exhibit 61: Account Creation Test Conditions

Functional Area	Technical Component	Usage Scenario
E/E Small Business Customer Assistance	IDM-Portal	User attempts log in, locks themselves out and needs password reset.

Functional Area	Technical Component	Usage Scenario
E/E Small Business Customer Assistance	IDM-Portal	User has current role assignment of individual and also needs additional portal role of navigator created for them.
E/E Small Business Customer Assistance	IDM-Portal	User needs immediate role termination.
E/E Small Business Customer Assistance	IDM-Portal	Duplicate user account is attempting to be created.
E/E Small Business Customer Assistance	IDM-Oracle Identity Management Suite	User logs in, locks themselves out and needs password reset.
E/E Small Business Customer Assistance	IDM-Oracle Identity Management Suite	User logs in and realizes they need read/write access to a page or field their current role assignment does not allow them to view/edit.
E/E Small Business Customer Assistance	IDM-Oracle Identity Management Suite	New user needs role assignment.
E/E Small Business Customer Assistance	IDM-Oracle Identity Management Suite	Duplicate user account is attempting to be created.
E/E Small Business Customer Assistance	IDM-Oracle Identity Management Suite	User needs immediate role termination.

Eligibility-Portal Account Creation Design Details

Interfaces and Data Elements

Not applicable.

Data

Not applicable.

Reports and Notices Generated

- A notice will be generated to make the applicant aware that their password has been reset.
- An activity log of information can be extracted from Oracle Identity Manager on an as-needed basis.

User Interface (Existing Screen)

Not applicable.

New Screen

Not Applicable.

Business Rules

- Brokers/Navigators must have distinct logins to the VHC Portal in order for certification to be documented and for their logins to be associated with the individual's applications that they are providing assistance for.

- Employers need to have distinct logins to the VHC Portal in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC Portal as one or the other in situations where they gain or lose employment.

References

The following documents help you to better understand the requirement(s):

- The *D-14 Functional Requirements* document which includes the requirements listed in this FSD.
- OneGate Individuals and Families Portal Experience User Guide page 18 of 65
- OneGate Brokers and Navigators Portal Experience User Guide page 10 of 27

21.1.3 Application Electronic FSD

Attendee/Contributor(s) List

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Electronic Application Diagram

Business Process Diagram

The Electronic Application Business Process describes the system functionality that facilitates creation and completion of an application for health care benefits in the Vermont Health Connect (VHC). VHC Electronic application creation and completion includes data entry of applicable applicant demographic and household information as well as verification of required information for Eligibility Determination which includes but is not limited to citizenship, residency, and income.

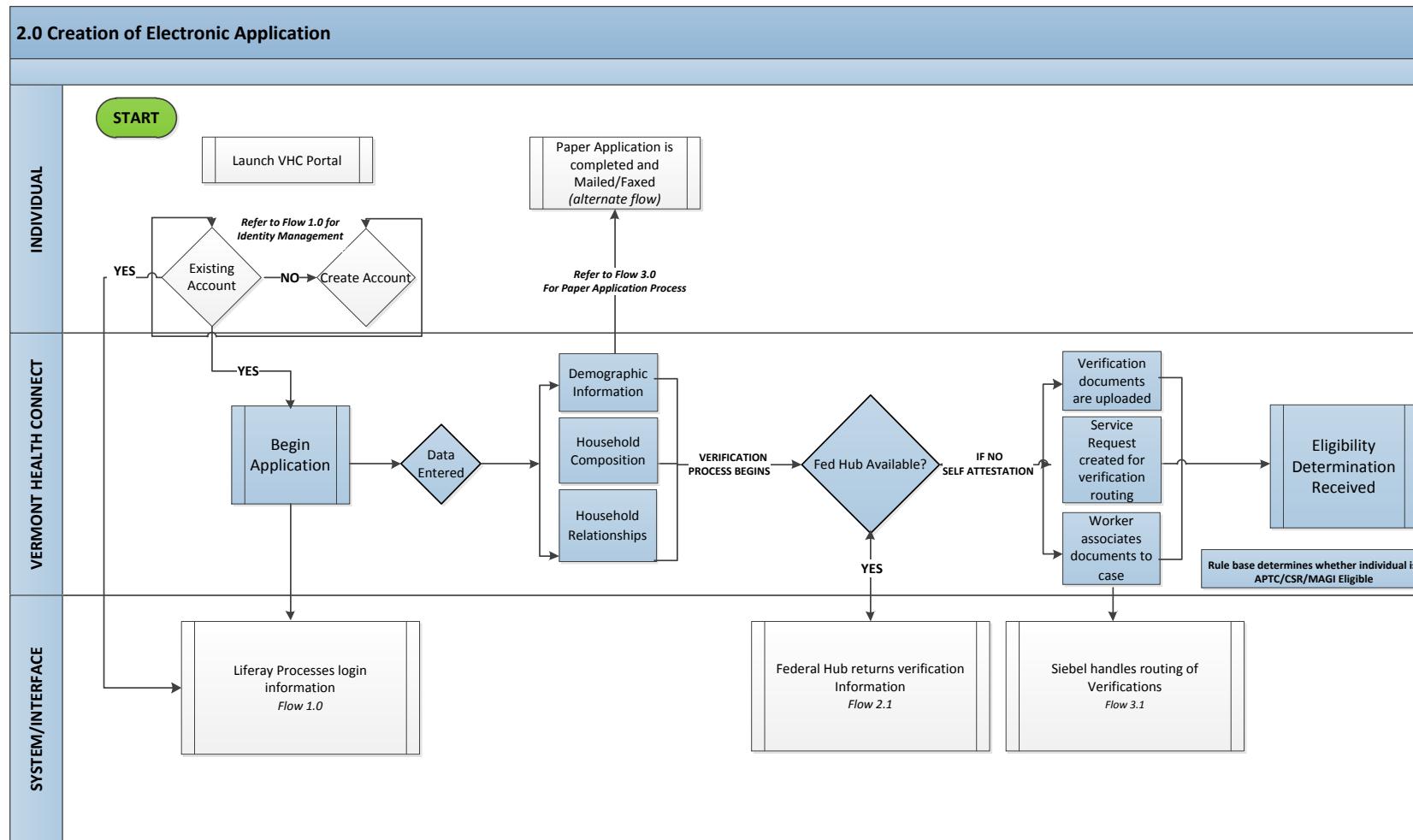
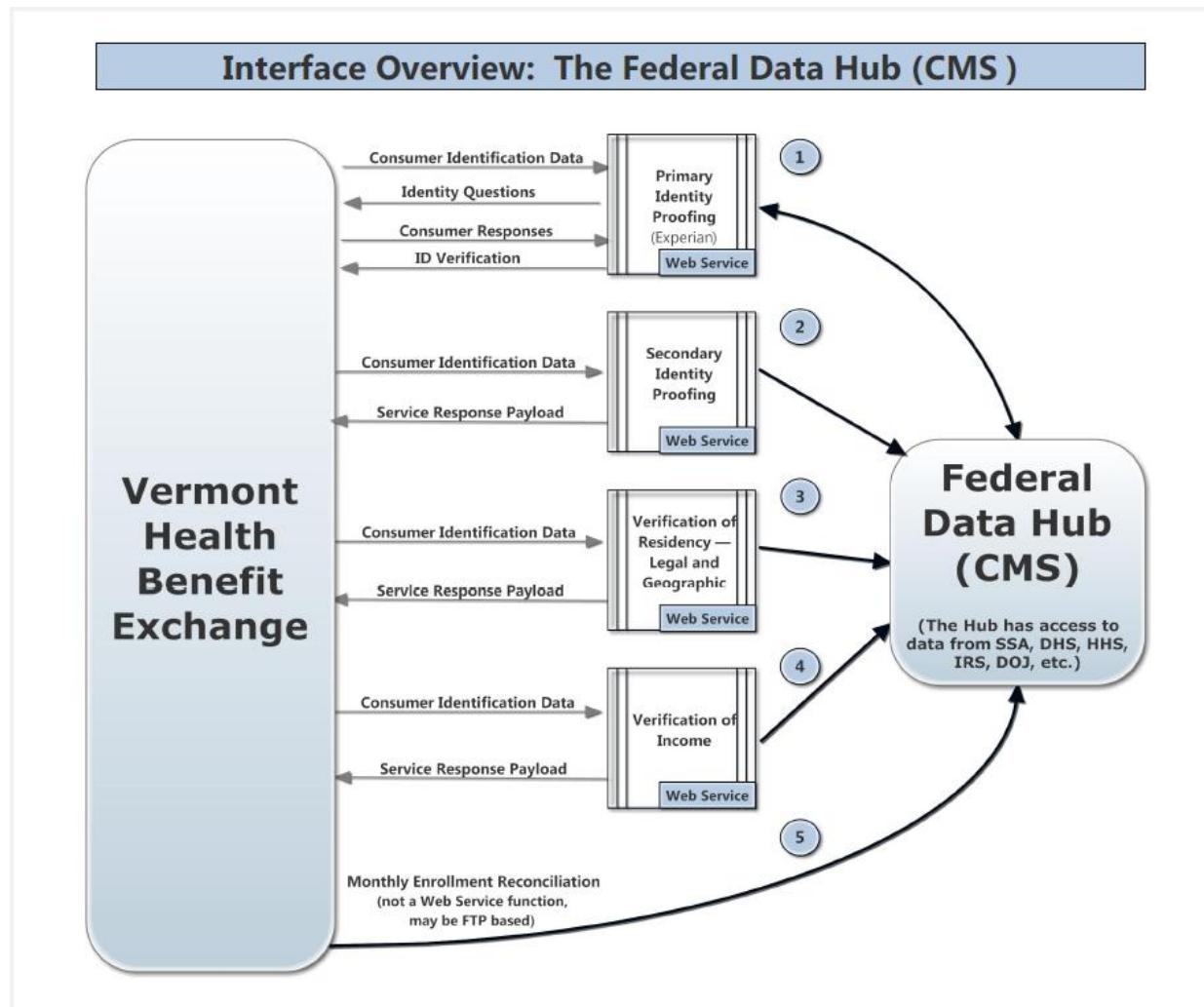
Exhibit 62: Electronic Application Business Process Flow


Exhibit 63: Electronic Application Technical Process Flow



The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 64: Electronic Application Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

Requirements Addressed

The following exhibit includes requirements which are "Met" by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 65: Electronic Application Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-51	Produce an immediate on-screen notification of a positive incarceration data match, and allow the individual the ability to provide alternate documentation or an attestation of incarceration status.	Validated	In the event that the data returned from the Federal Services Data Hub (FSDH), the applicant may provide documentation to support discrepancy. This may also include self-attestation.	Should be Met
ELM-87	Provide the ability to leverage the federal approach to verification from federal agencies such as the Internal Revenue Service, Department of Health and Human Services, and Department of Homeland Security to eliminate the independent establishment of those interfaces and connections at the State level.	Validated	OneGate currently uses the Federal verification method first and therefore meets the leverage requirement.	Should Be Met
EL-43	Ask knowledge-based ID questions based on data gathered from external data sources to facilitate authentication of identity.	Validated	OneGate currently meets ID question functionality and when live will use return questions as queried in Experian database.	Should Be Met

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-18	Identify and display verifications required for the applicant based on program rules.	Validated	OneGate will process the data input by the applicant and output an initial eligibility determination. From the Eligibility Summary page the applicant may click on the Go To My account button and then the verifications tab of their case to view remaining verifications that they need to provide to complete their application.	Should Be Met
EL-63	Provide individuals the ability to have a reasonable opportunity (90-day period under PPACA) to address inconsistencies reported by external entities (i.e. income, citizenship, etc.)	Validated	Siebel will be configured to support the 90-day period for individuals to provide verification documentation.	Should be met
EL-54	Provide the ability to verify information needed to evaluate eligibility for VT subsidized health plans.	Validated	SOV specific design is still in progress, but the same verification process used for the non SOV programs will be employed.	Should Be Met
EL-19	Send notifications to the Individuals, alerting them to submit required eligibility or verification information.	Validated	A notice will be developed in Thunderhead NOW informing individuals of the 90-day verification period and informing them of the verification information required.	Should be Met
ELM-25	Allow the applicant or applicant's authorized representative to save and amend the application or renewal for up to 30 days in order to gather additional information prior to submittal.	Validated	VHC Individual Portal permits applications to remain in the temporary database for 30 days enabling the applicant or authorized representative to work on the application for 30 days. Incomplete applications will be purged after 30 days.	Should Be Met
ELM-29	Provide system-generated date and time stamp for receipt of electronic applications to be used in monitoring standards of promptness by program.	Validated	System supported functionality	Should Be Met
ELM-40	Provide a mechanism to track required verification timeframes.	Validated	Siebel configuration will be created to meet the 90 day verification timeline.	Should Be Met

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-18	Provide electronic notification to CMS of the result of an Individual's eligibility determination.	Validated	Supported through interface with Federal Hub – confirmed in Wave 2 testing.	Should be Met
EL-26	Provide a consolidated online application for all programs offered through the Exchange, including but not limited to Medicaid, other VT public health and human service programs, and commercial health insurance subsidies.	Met		
EL-33	Allow continuance of the application process for Individuals without an SSN (e.g. newborns and undocumented Individuals).	Met		
EL-39	Allow for the indication / determination of an applicant's membership in a Native American tribe, as defined by the ACA as well as Medicaid.	Met		
EL-45	Validate Individual application information for completeness of data and prompt the Individual for additional information, if applicable.	Met		
EL-52	Update individual accounts with the verification results as appropriate.	Met		
EL-53	Provide the capability for an Individual to confirm income data from external sources.	Met		
EL-55	Provide the ability for Individuals to submit images of documents required for eligibility verification.	Met		
EL-57	Allow Exchange Staff, Brokers, and Navigators to view, save, and print Individual verification documents that have been up-loaded to a case.	Met		
EL-58	Provide the capability to allow designated users to confirm, notate and mark active/non-active status of verification documents and verification results.	Met		
EL-60	Provide the ability to allow Individuals to view, confirm, dispute and submit corrections to verification results.	Met		
EL-69	Allow Exchange Staff, customers, call center staff and Navigators to search for a customer's household information and composition.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-70	Allow Exchange Staff, customers, call center staff and Navigators to view a customer's household information and composition.	Met		
EL-74	Provide the ability to split family relationships and to assign certain field information to the appropriate people.	Met		
ELM-05	As part of the application process, collect citizenship / immigration status information as necessary to establish MAGI QHP eligibility (incl. APTC, CSR).	Met		
ELM-07	As part of the application process, support collecting additional household information and income information as necessary to establish MAGI QHP eligibility (incl. APTC, CSR).	Met		
ELM-11	Provide a method to identify persons who are eligible for services.	Met		
ELM-17	Provide a mechanism to define required and optional fields, including default data values as applicable, based on the MAGI QHP eligibility (incl. APTC, CSR). program rules.	Met		
ELM-19	Produce a customized listing of verification documents for an eligibility criteria required to complete eligibility determination.	Met		
ELM-20	Allow the worker/applicant to upload and attach source documents to support eligibility determination.	Met		
ELM-21	Present the applicant with a summary view of the information entered prior to submission.	Met		
ELM-28	Provide an automated or guided application process to enable the applicant/worker to easily enter required information.	Met		
ELM-37	Provide a mechanism to indicate which verification documents have already been provided.	Met		
ELM-44	Update the applicant's record with the verification results as appropriate.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-48	Provide the capability to create and maintain an electronic household file of all applicants and families requesting MAGI QHP/APTC/CSR from the time that they first make an entry to the system.	Met		
ELM-51	Allow authorized users to search online household files using key fields such as name, SSN, ID, date of birth, etc.	Met		
ELM-52	Provide a mechanism for authorized users to access beneficiary/household summary from any screen.	Met		
ELM-55	Provide a mechanism to indicate relationships between all members of a household.	Met		
ELM-66	Allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.	Met		
ELM-80	Support both task-based and household-based operations.	Met		
ELM-81	Provide the capability to save work in progress, exit the workflow, access work at a later point with all of the information still populated from the previous worker's actions so as previous work will not need to be repeated and the worker can enter the workflow where they left off.	Met		
EL-50	Provide capability to manually update incarceration status based documentation provided by the Individual (e.g. release papers).	Validated	One Gate currently supports field to update incarceration status manually	Should Be Met
EL-46	Provide the capability to gather and display Individual and household eligibility data from external sources.	Validated	One Gate currently supports field to update household and eligible household and eligibility data from the Fed Hub. IE will handle ability to receive data from external state systems.	Should Be Met
EL-64	Provide the capability for an Individual to indicate or attest to affiliation with recognized Native American tribe during the application process, request verification and update the individual account with verified information.	Validated	Configuration will need to occur to include this functionality in the VHC	Should Be Deferred

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-73	Allow Exchange Staff, call center staff and Navigators to merge or associate different household members together.	Validated	OneGate case management currently includes merge functionality	Should Be Met
ELM-004	As part of the application process, collect State residence information in accordance with the Federal and State regulations and necessary to establish MAGI QHP eligibility (incl. APTC, CSR).	Validated	OneGate currently includes fields to input residency verification.	Should be Met
ELM-014	Provide an [anonymous] screening tool that is compatible with the HBE and allows an applicant to answer an initial basic set of questions to quickly identify potential eligibility for MAGI QHP (incl. APTC, CSR).	Validated	OneGate currently includes fields to complete anonymous screening.	Should Be Met
EL-65	Provide the ability to update information related to other components of eligibility not described above, including access to minimum essential coverage	Validated		Email to Cheryl Baker to confirm
ELM-16	Provide interactive questions that can lead to appropriate next questions, to include identification of an ABD-applicant, in need for a supplemental form(s), based on responses and other existing data necessary to establish MAGI QHP eligibility (incl. APTC, CSR).	Validated		Out of scope (per MB 5/21/13)
ELM-27	Collect and manage information about beneficiary population from diverse sources.	Validated	OneGate data will be available for the Oracle Business Intelligence tool to create reports for the beneficiary population as needed.	Should Be Met
ELM-32	Capture and display date that a disposition was made on an application/renewal.	Validated	OneGate currently includes functionality to capture and display application/renewal disposition date.	Should Be Met
ELM-035	Display to the applicant discrepant information between the new application and information stored in the existing household	Validated	OneGate currently includes functionality to display and compare current applicant data with new applicant data.	Should Be Met
ELM-036	Allow for a manual verification process when the Federal or State hub verification service is not available.	Validated	Manual verification process will be handled by Oracle WebCenter Capture, OneGate and Siebel.	Should Be Met
ELM-39	Provide a mechanism to manually extend verification timeframes.	Validated	Siebel configuration of business rules	Should be met

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-042	Provide the ability to allow applicants to view, confirm, dispute and submit corrections to verification results.	Validated	OneGate currently supports required functionality	Should Be Met
ELM-043	Provide applicants the ability to address inconsistencies reported by external entities (i.e. income, citizenship, etc.) within a timeframe defined by the State.	Validated	OneGate currently supports required functionality	Should Be Met
ELM-049	Auto-populate known data within the system between modules and functions within the life of the household.	Validated	OneGate currently supports required functionality	Should Be Met
ELM-050	Provide a mechanism to edit and store certain automatically populated data as defined by the State.	Validated	OneGate currently supports required functionality	Should Be Met
ELM-053	Provide the functionality to reinstate service coverage until the Administrative Appeals decision is rendered.	Validated	Vermont Specific Design	Confirming with Cheryl
ELM-056	Provide a mechanism to automatically create the inverse family relationships (e.g., parent - child, child - parent, etc.).	Validated	OneGate currently supports required functionality	Should Be Met
ELM-058	Provide a mechanism to indicate that a beneficiary/household is under review.	Validated	Siebel Configuration	Should be deferred
ELM-059	Provide a mechanism to alert management that pending applications have exceeded specified time limits.	Validated	Siebel Configuration	Should Be Met
ELM-060	Automatically create an alert of approaching deadlines.	Validated	Siebel Configuration	Should Be Met
ELM-065	Provide the capability to track and record any changes to an individual's information.	Validated	OneGate currently supports required functionality	Should Be Met
ELM-068	Provide web-based functionality to allow the applicant to renew eligibility online.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-069	Allow authorized users to update, add persons, and relationships to an existing household and maintain a history thereof.	Met	OneGate currently supports required functionality	Should Be Met
ELM-70	Track when a renewal is due.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-71	Have the ability to track which renewals have been sent and which have been returned.	Validated	Will be demonstrated with OneGate release 3.2.2	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-72	Have the ability to automatically send renewal notices to beneficiaries	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-73	Have the ability to pre-populate renewal forms with beneficiary information that is currently on file and allow the beneficiary to change or add information.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-74	Renew eligibility based on Federal and State statutes and regulations as necessary to establish MAGI QHP eligibility (incl. APTC, CSR). .	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-76	Track and allow beneficiaries who did not return the pre-populated renewal form or the required documentation and are terminated on that basis a reconsideration period, as defined by the State, when the State would reconsider eligibility without a new application and renew eligibility if necessary information is provided.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-77	Provide the capability to automate the renewal process if all information remains the same or if verified information remains within applicable limits.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-78	Assure renewal forms meet the same accessibility standards as application.	Validated	Will be demonstrated with OneGate release 3.2.2	
ELM-79	Provide the functionality to routinely (e.g., daily, weekly, or monthly as determined by the State) match available data in the State Data Hub or with other interfaces to identify recipient changes (e.g., obtain employment (via DLIR), begin receiving other TPL (via TPL vendor), deceased (via DOH vital statistics), or enter prison (via Public Safety).	Validated	Supported through interface with Federal Hub – confirmed in Wave 2 testing.	Should Be Met
ELM-82	Track, monitor, and display work done/ in queue to supervisors.	Validated	Siebel configuration will be completed to meet this requirement	Should Be Met
ELM-085	Alert eligibility workers or a processing queue when beneficiary information is updated through an automated interface.	Validated	Siebel needs to be configured in order to alert workers when applicant information is updated through an automated interface	
ELM-086	Provide a Business Rules Engine to access two-way, real-time interfaces with existing State databases to verify application data (e.g., State wage data, incarceration data) as required.	Validated		Out of Scope per MB 5/21/13

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-029	Allow an applicant or applicant's representative to amend an application as long as a determination has not been made.	Met	OneGate currently supports required functionality	Should Be Met
ELM-041	Provide a mechanism to generate a list of received and pending verifications including eligibility worker entered comments.	Met	OneGate currently supports required functionality	Should Be Met
EL-005	Indicate whether an applicant is already enrolled in a publicly subsidized health coverage program.	Validated	OneGate currently supports required functionality	Should Be Met
EL-007	Interface with the DHS Eligibility System to display eligibility information for VT subsidized public and commercial health plans available through the Exchange	Validated	All eligibility functionality will be in VHC	Should Be Met
EL-024	Provide for the management of the Individuals application intake process, including viewing, updating and displaying the Individual's and household's eligibility history to authorized users.	Validated	OneGate currently supports required functionality	Should Be Met
EL-028	Route applicant data, and related attachments, to the DHS Eligibility System to determine real-time eligibility for publically subsidized programs and commercial health coverage programs offered through the Exchange.	Validated	All eligibility functionality will be in VHC	Should Be Met
EL-030	Route eligibility related attachments from users to Medicaid/CHIP to support eligibility processing and determination.	Validated	Details of data transmission between VHC and ACCESS in discussion	
EL-032	Provide the capability for the Individual to attest that any information provided by a Navigator or Brokers is accurate.	Validated	OneGate currently supports required functionality	Should Be Met

Key Assumptions and Considerations

Assumptions

- Valid email address will be provided by applicant in order to receive online notices.
- Online Applicants who do not provide a valid email address will receive notices through U.S. postal service.
- Applicant will have valid account created on the Vermont Health Connect (VHC), in order to access the online application.
- Individuals/Navigators/Authorized Users will have capability to upload required verification information.

Functional Considerations

The following functional items considered:

- Ensure timeliness of completion of applications.
- Ensure timeliness of completion of incomplete verification documentation and Eligibility Determinations.
- The system-generated time /date stamp that is used when the application is initiated in the portal is associated to the case when it is created in Siebel so it can be used as needed.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate
- Siebel
- Federal Hub Interface
- Thunderhead NOW

Verification Methods

- Verification using the Federal Services Data Hub
 - ▶ Applicant creates and reaches the External Verification page and gives consent that their information will be sent to the verification source (Experian)
 - ▶ Potential match validation message is received
 - ▶ Challenge questions are received by Experian for the applicant to answer
 - ▶ Identification is confirmed
 - ▶ Information returned from the Federal Services Data Hub appears in the corresponding fields of the OneGate application.
 - ▶ Applicant has opportunity to review data returned and use self-attestation method to correct verification results. (ex. *Income change*)
- Verification using self-attestation
 - ▶ Required verifications are provided in person at local office, through fax or email and uploaded into Siebel through OneGate user interface.
 - ▶ A Siebel service request is created and routed to worker to process the documents
 - ▶ Worker receives Service Request, associates documents to corresponding case and updates verification status for case.
- Receipt of verification documents through the U.S. mail
 - ▶ Document is scanned at State of Vermont document processing center
 - ▶ State staff indexing the scanned document and the HBE Unique ID field blank
 - ▶ The scanned document will be sent to the WebCenter Capture document repository through an automated batch process
 - ▶ Once received, a Service Request will be created for the document in Siebel including the URL to the scanned version within WebCenter Capture
 - ▶ Siebel will route the Service Request to the appropriate worker
 - ▶ The worker responsible for processing the document will review the document; associate it with the corresponding case, which will generate an HBE Unique ID.

New Testing considerations

- Test environment must have working connection to the Federal Data Hub test server in order to complete sufficient testing for the Federal Data Hub Interface requirements
- Test cases must be created that include successful uploading of documents (verification simulation)
- Valid email address must be entered in application in order to receive online notices
- Test environment must have working connection to Thunderhead NOW in order to simulate paper notice generation.

The following exhibit lists test conditions for Electronic Application Creation and Verification:

Exhibit 66: Electronic Application Test Conditions (*Initial List*)

Functional Area	Technical Component	Usage Scenario
E/E	One Gate	Individual begins application begins to fill out demographic information, Signs out and returns to complete application 30+ days later (Application document is in OG portal only)
E/E	One Gate/Siebel	Individual begins application fills out demographic information; completes a portion of verifications; receives an Eligibility Determination; Signs out and returns to complete verification process 90+ days later (Application is committed to Siebel database)
E/E	OneGate	Individual begins application fills out demographic information begins verification and the Federal Data Hub is down
E/E	OneGate	Individual begins application fills out demographic information begins verification the Federal Data Hub is down but comes back up before the applicant has saved their applicant data.
E/E	OneGate	Individual begins application fills out demographic information begins verification the Federal Hub is down and does not come back up after they logout of their current session. Applicant Signs on again at a later time to complete the verification process.
E/E	OneGate	Applicant is determined Eligible for Vermont Specific programs and must provide verifications required for the corresponding program.
E/E	OneGate/Siebel/ThunderheadNOW	Applicant needs to return to the system to complete the application and receive determination and receives online notice stating the expiration date
E/E Noticing	OneGate/Siebel/ThunderheadNOW	Applicant needs to return to the system and provide required verifications to complete the application and receive determination. Applicant receives online notice stating verification deadline.
E/E Noticing	OneGate/Siebel/ThunderheadNOW	Applicant needs to return to the system to complete the application and receive determination. Paper notice is generated stating the expiration date

Functional Area	Technical Component	Usage Scenario
E/E Noticing	OneGate/Siebel/ThunderheadNOW	Applicant needs to return to the system and provide required verifications to complete the application and receive determination. Paper notice is generated stating the deadline.

Electronic Application Design Details

Interfaces and Data Elements

- Internal Interfaces
 - ▶ One Gate Portal to Siebel – As of 5/16/2013 – the identification of all data elements that need be transmitted to the Siebel database upon submission of the application in the portal has not been finalized.
 - ▶ Siebel to ThunderheadNow – As of 5/16/2013 – the identification of the data elements that need to be included in the generation of the notice to be sent to the applicant in paper format has not been finalized.
- External Interfaces
 - ▶ Federal Data Hub to the Vermont Health Connect (VHC) – the transmission of data elements for required verification information returned to the Vermont Health Connect will be in accordance with federal rules as specified by CMS.

Data

Not applicable.

Reports and Notices Generated

- Notices: EL-18; ELM-40
- Reports: ELM-27; ELM-59

User Interface (Existing Screen)

Not applicable.

New Screen

Not applicable.

Business Rules

Not applicable

References

The following documents help you to better understand the requirements(s):

- The *D-14 Functional Requirements Document* (previously named *F-14 Requirements Traceability Matrix (RTM)*) which includes requirements listed in Exhibit 60: Account Creation Requirements Addressed.
- OneGate Individuals and Families Portal Experience User Guide version 3.2.1 page 28-30 of 65.
- OneGate Individuals and Families Portal Experience User Guide version 3.2.1 page 37, 53 of 65.

21.1.4 Application Paper FSD

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Paper Application Process

Business Process Diagram

The Paper Application Business Process describes the functionality that allows paper applications to be accepted and an online equivalent created for them in the Vermont Health Connect. In order to illustrate all steps involved in the paper application process it assumes the most comprehensive method of processing paper which would be receipt through the U.S. postal service. Paper applications and corresponding verification documentation may also be accepted and uploaded by local office employees, Call Center Representatives, and Caseworkers. These methods of receipt of paper applications and verification documentation would eliminate the need for involvement of the document processing center and handling by Oracle WebCenter Capture.

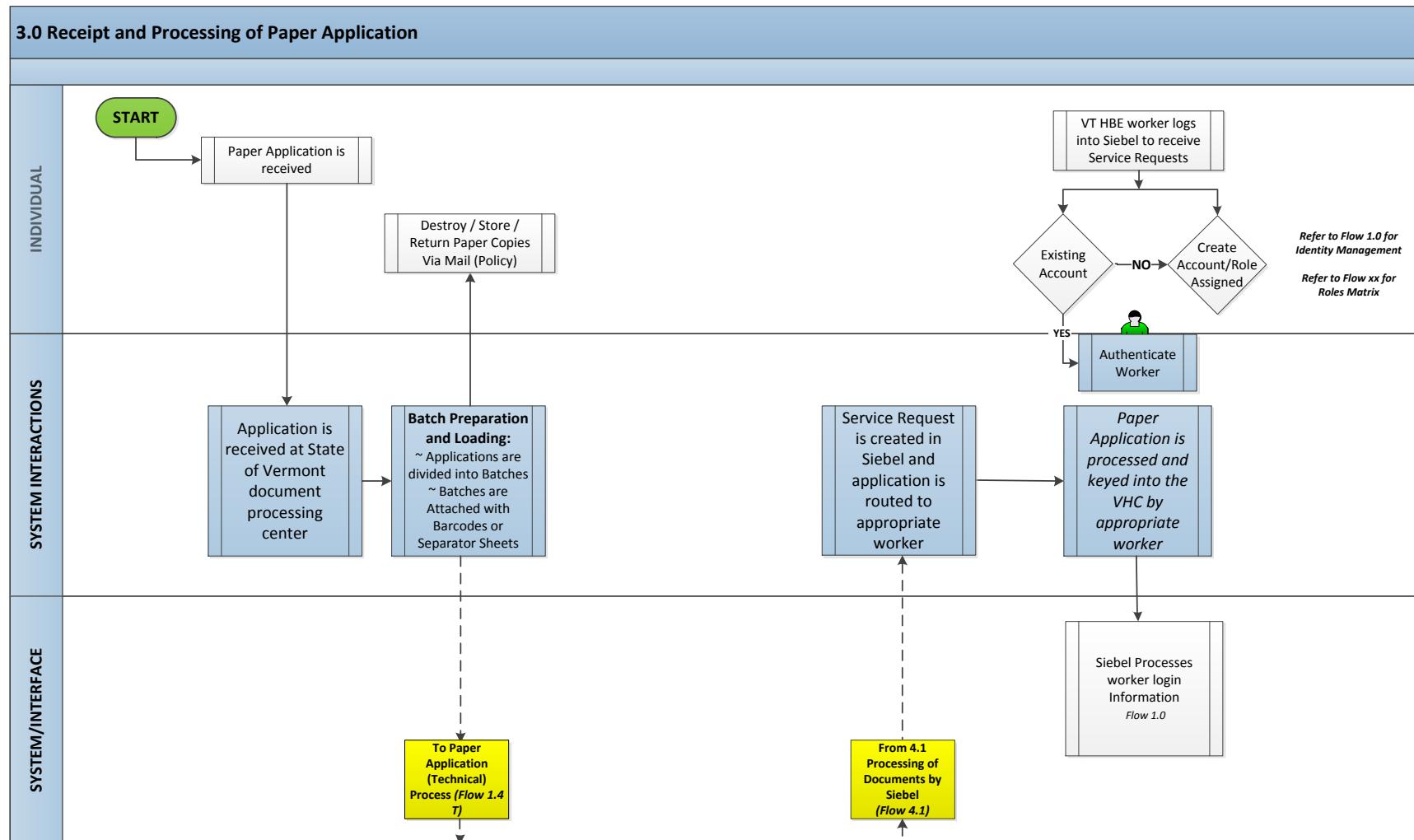
Exhibit 67: Application Paper Business Process Flow


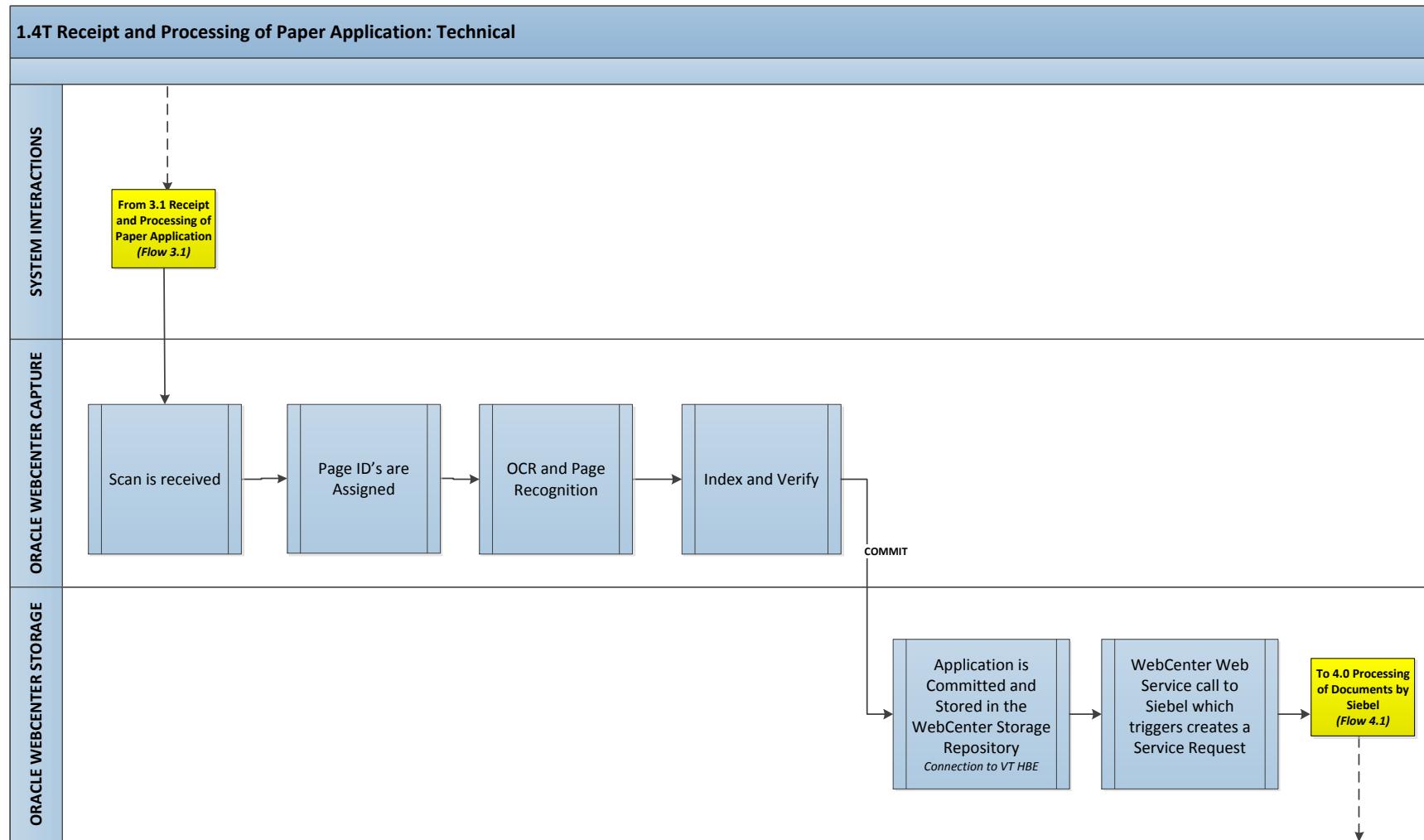
Exhibit 68: Application Paper Technical Process Flow


Exhibit 69: Application Paper Requirements Reviewed lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 69: Application Paper Requirements Reviewed

Ref Code	Status	Responses to Test Team (Entered in ALM)
ELM-30	Validated	Once the receipt date is finalized, the field will be entered into ALM so they will know which one to confirm.
ELM-30	Validated	General question as to how the paper process will be tested and will test environment include connect to Oracle WebCenter Capture?
EL-36	Validated	Once field is identified for receipt of uploaded documents it will be entered in corresponding requirement in ALM.
ELM-34	Validated	Once roles matrix is finalized by the State of Vermont it will be uploaded in ALM and associated with requirement.

Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 70: Application Paper Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-27	Intake applicant information, including attachments, required to determine eligibility for publicly subsidized health coverage programs offered through the Exchange.	Validated	OneGate will accept all applicant information and allow corresponding documentation to be uploaded for all programs associated with the applicant determination.	Should Be Met
EL-59	Allow Exchange Staff, Individuals, Brokers, and Navigators to provide alternative verification through multiple methods.	Validated	Verifications will be accept verifications at the local office, fax, postal mail and email.	Should Be Met
ELM-38	Provide applicants the ability to submit alternative verification via multiple avenues (e.g., email, mail, phone, fax, walk-in).	Validated	Verifications will be accept verifications at the local office, fax, postal mail and email.	Should Be Met
EL-36	Process documents received in the mail, via facsimile, web portal, and/or email.	Validated	Documents received will be processed using Oracle WebCenter Capture and Siebel by the assigned worker.	Receipt date needs to be determined

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-15	Allow Exchange Staff to submit case information for eligibility determination outside of the standard workflow.	Validated	Case information will be accept verifications at the local office, fax, postal mail and email.	Should Be Met
ELM-30	Provide system-generated date and time stamp for registration of paper applications.	Validated	Oracle WebCenter Capture will handle receipt of paper applications.	Receipt date needs to be determined
ELM-34	Route applications to the appropriate staff, based on business rules.	Validated	Routing of applications will be handled by Siebel.	Roles Matrix needs to be finalized to determine workers that paper applications should be routed to.

Key Assumptions and Considerations

Assumptions

- Documents will be accepted through U.S. postal mail, local offices, fax, web portal and email
- Paper applications/documentation can be processed and uploaded either through the document processing center (in the case of U.S. postal mail), or by using existing document upload functionality.
- Once documents are sent to Siebel by the Oracle WebCenter Capture, caseworker intervention will be needed in order to index the document so it can be assigned a unique ID in the VHC.
- Roles as specified by the State of Vermont will be used to enable various workers in the VHC to upload process and complete casework.

Functional Considerations

The following functional items should be considered:

- Per the State of Vermont, a method must be employed to accept and process paper applications for the VHC.
- Existing OneGate functionality does not include a scanning component; therefore, Oracle WebCenter Capture will be used to complete this function.
- Configuration between Oracle WebCenter Capture and Siebel case management will be completed to enable correct routing and associating of documents with corresponding cases.
- Siebel Case Management will be used to route, assign, and complete casework, once the paper application/documents are uploaded.

Solution / Technical Considerations

The following solution and technical items should be considered:

- Oracle WebCenter Capture
- Siebel
- OneGate

New Testing Considerations

The following testing items must be considered:

- Oracle WebCenter Capture and Siebel must be configured in the test environment in order to test the U.S. postal mail paper scenario.
- OneGate upload functionality must be used to test the receipt at local office paper scenario.
- Tester must be able to test scenarios with all applicable roles.
- Valid email address must be entered in application in order to receive online notices.
- Test environment must have working connection to ThunderheadNOW in order to simulate paper notice generation

Test conditions for Electronic Application Creation and Verification:

Exhibit 71: Application Paper Test Conditions

Functional Area	Technical Component	Usage Scenario
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel	Paper application is received by U.S. postal mail, is scanned and indexed by Oracle WebCenter Capture. Service request is created, but case manager does not begin work on application until > 30 days later.
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel	Paper application is received at local office, is uploaded and a Service request is created. Case manager does not begin work on application until > 30 days later.
E/E Small Business Customer Assistance	OneGate Siebel	Paper application is received at local office, is uploaded and a Service request is created. Case manager does not begin work on application until > 30 days later.
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel	Paper application is received at local office, is uploaded and a Service request is created. Notice is sent as to the additional verification information that is needed to complete the initial determination.
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel Thunderhead NOW	Paper application is received, processed and keyed into VHC. Notice is sent as to the additional verification information that is needed to complete initial determination.
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel	Paper application is received, processed and keyed into VHC. Required verification documentation is not received from applicant for initial determination until > 90 days.
E/E Small Business Customer Assistance	Oracle WebCenter Capture Siebel	Paper application is received, processed and keyed into VHC. Required verification documentation is not returned so initial determination can be completed.

Paper Application Design Details

Interfaces and Data Elements

- Oracle WebCenter Capture/Siebel

Exhibit 72: Paper Application Design Details

Data Element	Source System	Target System
Document receipt date (field name TBD)	Oracle WebCenter Capture	Siebel Case Management
Index number	Oracle WebCenter Capture	Siebel Case Management

Data

Not applicable.

Reports and Notices Generated

Notices: ELM-38

User Interface (Existing Screen)

Not applicable.

New Screen

Not applicable.

Business Rules

The Vermont Health Connect (VHC) must support a single-streamlined application that also compensates for those applicants that complete paper applications.

References

The following documents help you to better understand the requirements(s):

- One Gate Case Management User Guide v. 3.2.1 p. 35-40.
- D-14 Functional Requirements deliverable document

21.1.5 Eligibility Determination FSD

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Business Process Diagram

The Eligibility Business Process describes the system functionality that includes federal and state rules needed to process applications submitted through the VHC. This functionality includes but is not limited to:

- Federal APTC and CSR calculation
- Determinations for federal programs such as MAGI Medicaid and CHIP
- State of Vermont Subsidy and CSR calculation
- State of Vermont Programs

All Eligibility Determination functionality will be contained within the VHC rule base, which utilizes the Oracle Policy Automation rules engine. Eligibility determinations will include factors of household, citizenship, income, and incarceration status.

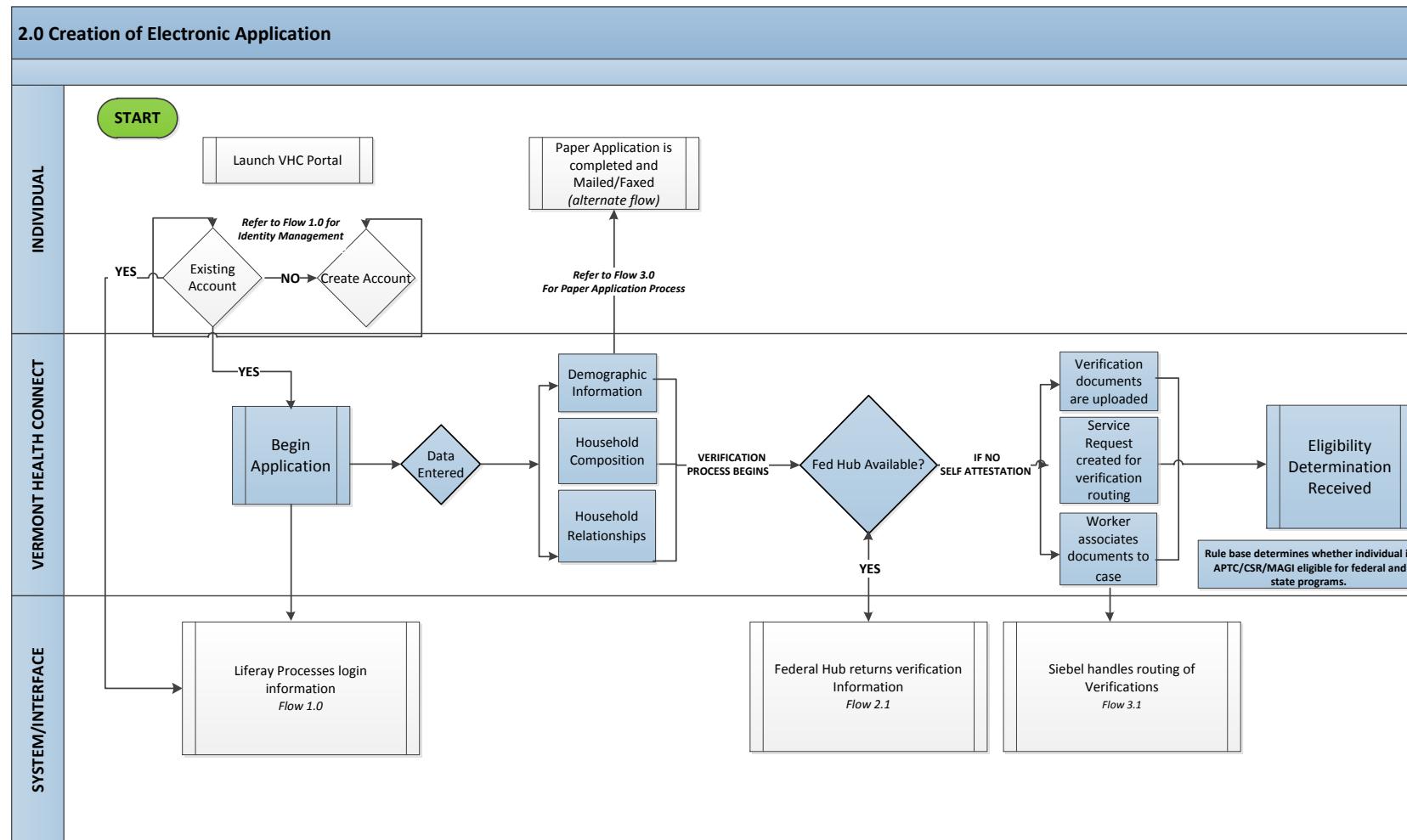
Exhibit 73: Eligibility Application Business Process Flow


Exhibit 74 lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 74: Eligibility Application Requirements Reviewed

Ref Code	Status	Open Action Items
EL-62	Validated	The notification from Medicaid/CHIP as to loss of coverage will come from the Federal Services Data Hub.

Requirements Addressed

The following exhibit lists the requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 75: Eligibility Application Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-13	Allow individuals in a household to be eligible under different categories and receive different benefits related to MAGI QHP/APTC/CSR based upon individual information.	Met		
ELM-06	As part of the application process, collect household and income information to determine if the household is under 100% FPL.	Met		
EL-14	Provide individuals with the ability to acknowledge an eligibility determination.	Met		
EL-42	Provide an indicator for individuals determined eligible for Medicaid and CHIP who access coverage through the Exchange	Met		
EL-13	Provide the capability for an Individual to identify the source of information used to determine eligibility.	Met		
EL-62	Provide the capability to accept notifications from Medicaid/CHIP regarding loss of coverage, and should evaluate those individuals for QHP subsidized coverage.	Validated	This will be via the interface with ACCESS	Part of ACCESS Remediation SOW

Ref Code	Description	Status	Design/Solution Description	Open Action Items
ELM-10	Allow business users, as determined by the State, to easily read / modify the eligibility determination rules with minimal IT support.	Validated		Should be deferred
ELM-12	Be scalable and flexible enough to accommodate and adapt to changes required by State and/or Federal statute, regulation, mandate, decision, or policy.	Validated		Should be Met
ELM-45	Assure consistency in eligibility determination processing when applicants attempt to access services through different entry points.	Met		
ELM-47	Display the eligibility results in a manner that is comprehensive and easy to understand.	Met		

Key Assumptions and Considerations

Assumptions

- The VHC rule base meets all federal eligibility rules requirements. OneGate rule base should include all the federal rules which are in configuration for Vermont-specific options. This will be validated during testing.
- The VHC rule base will include the Vermont-specific eligibility rules
- OneGate functionality includes a Rights and Responsibility page making the applicant aware of and having them sign to declare that they understand the time limits and their rights regarding their eligibility determination.
- OneGate functionality contains a determination summary page where the applicant can review the determination for each household member and then continue on their case to discover any remaining required verification information that is needed to complete the application.

Functional Considerations

The following functional items should be considered:

Eligibility functionality specific to the State of Vermont will be included in the OneGate rule base as well as the existing federal functionality

Solution / Technical Considerations

The following solution and technical items should be considered:

OneGate rule base

New Testing Considerations

The following testing items must be considered:

- Development for the Vermont rules must be completed before testing can be completed
- The tester must test conditions for the portal login:

Exhibit 76: Eligibility Application Test Conditions

Functional Area	Technical Component	Usage Scenario
E/E	OneGate Rule Base	Mother Father Dependent 1 Dependent 2 HH receives QHP
E/E	OneGate Rule Base	Father Mother Dependent 1 Dependent 2 HH receives QHP Dependent 1 receives CHIP
E/E	OneGate Rule Base	Father Mother Dependent 1 Dependent 2 HH receives QHP Dependent 1 receives Dr. Dynasaur
E/E	OneGate Rule Base	Father Mother Dependent 1 Adult Child living in the home Adult child's dependent HH receives QHP Adult Child receives Medicaid Adults dependent receives Dr. Dynasaur
E/E	OneGate Rule Base	Father Mother Dependent 1 Adult Child living in the home Adult child's dependent HH receives QHP Dependent 1 receives CHIP Adult Child receives Medicaid Adults dependent receives Dr. Dynasaur
E/E	OneGate Rule Base	Father Mother Dependent 1 Adult Child not living in the home who is not a tax filer HH receives QHP
E/E	OneGate Rule Base	Father Mother Dependent 1 Adult Child not living in the home who is a tax filer HH receives QHP
E/E	OneGate Rule Base	Adult 1 who files taxes and receives individual APTC Adult 2 who files taxes and receives individual APTC APTC's need to be combined to be applied to one plan
E/E	OneGate Rule Base	Adult 1 who files taxes and receives individual APTC Adult 2 who files taxes and receives individual APTC Dependent 1 of Adult 1 APTC's need to be combined to be applied to one plan Dependent 1 receives Dr. Dynasaur

Functional Area	Technical Component	Usage Scenario
E/E	OneGate Rule Base	Husband Wife Husband has been on disability for > than 26 months which disqualifies him to receive APTC
E/E	OneGate Rule Base	Husband Wife Dependent 1 Husband has been on disability for > than 26 months which disqualifies him to receive APTC Dependent 1 is on Dr. Dynasaur
E/E	OneGate Rule Base	Husband Wife HH is receiving QHP Husband is turning 65 next month which will disqualify him from receiving APTC
E/E	OneGate Rule Base	Husband Wife Dependent 1 HH is receiving QHP Husband is turning 65 next month which will disqualify him from receiving APTC Dependent 1 is on Dr. Dynasaur

Note: based on initial list submitted by SOV. Additional scenarios are being developed.

Eligibility Determination Design Details

Interfaces and Data Elements

Not applicable.

Data

Not applicable.

Reports and Notices Generated

Not Applicable

User Interface (Existing Screen)

Not applicable.

Business Rules

- Eligibility determination must include all associated federal rules per the ACA
- Eligibility determination must include all associated state rules per the State of Vermont
- Applicant must be able to review their determination and the opportunity to provide needed verification in the case of discrepant information
- Applicant must be able to review their determination and submit an appeal

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 77: Eligibility Application Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

References

The following documents help you to better understand the requirements(s):

OneGate Individuals and Families Portal Experience User Guide v 3.2.1 page 22,28-33, 34, 36 of 65

21.2 Web Portal

21.2.1 Web Portal FSD

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Web Portal Process

Business Process Diagram

The Web Portal requirements cover the general functionality of the consumer facing web portal, which is realized through the use of the COTS OneGate product and other custom developed software. Due to the nature of these requirements, there is no business process or diagrams to accompany these design items.

Requirements Addressed

This exhibit includes requirements which are "Met" by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 78: Requirements Addressed for Web Portal

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-1	Design based on Enrollment 2014 UX project	Met		
WP-2	Provide content specific help on screen for users	Met		
WP-3	Provide additional language support features. At a minimum, the system should provide language "flag" icons to direct consumers in their native language to Navigator and/or Translation services	Validated	This will be addressed with the SOV and customized based upon the design. The Home Pages Workgroup is meeting regularly; the design is due 6/28/13.	Determine and provide language flag icons
WP-4	Persist telephone support options on all Portal views	Met		
WP-4A	Persist live chat support options on all Portal views	Deferred		
WP-5	Provide trained business user portal content management capabilities	Met		
WP-6	Display general information about the state's health and human services programs publicly for all users to view without requiring a login.	Validated	This requirement will be met on the Portal Home Page. The actual content will be the responsibility of the SOV and their design team.	The definition of content is required by the SOV.
WP-7	Display and provide browsing capabilities on the various health options and plans available to users without requiring a login.	Validated	An anonymous user can access the Portal and run a prescreening to view the various health options and plans. Currently, the user has to go through the prescreening to determine the eligibility for QHP or public plans. The cost of the QHP plans are calculated based on the information entered in the prescreening step (e.g. Income, Zip code).	
WP-8	Provide robust search capability for information contained on the portal without requiring a login.	Met		
WP-9	Provide capability for users to search for Navigators using a variety of criteria without requiring a login.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-10	Provide information on the procedures, including materials that will be needed to complete the application process for signing up for health coverage without requiring a login.	Validated	The text describing the procedures and materials needed to complete the application process will be available to all individuals from either the Home Page or via a link from the Home Page.	The text describing the procedures and materials will be defined by the Vermont Health Connect.
WP-11	Provide users (including authorized representatives) the option to complete a pre-screening of potential eligibility for state health and human services programs via a configurable module.	Met		
WP-12	Provide an expedited expert level pre-screening function to Navigators, brokers, call center staff, and caseworkers.	Met		
WP-13	Accept input from Navigators, caseworkers, Call Center staff and customers necessary for pre-screening.	Met		
WP-14	Display the results of the pre-screening assessment of eligibility to Navigators, caseworkers, call center staff, and customers.	Validated	Pre-screening can be performed by any public facing portal user as long as the minimum household information is known.	
WP-15	Provide the ability to flag any information or situations that require more detailed information and direct Individuals for further assistance.	Validated	This will be a customization to the portal.	
WP-16	Support additional data-gathering regarding user experience with QHPs and/or quality of care (i.e. surveys, questionnaires, etc.)	Met		Survey tool and content action of Home Page Workgroup.
WP-17	Provide unverified exchange web portal login/accounts - Enable user to save information and return to the site without giving 'official' identity verification data (e.g. SSN, name, etc.)	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-18	Provide verified VHC portal login/accounts with appropriate system access according to system assigned role (e.g. consumer, Navigator, Issuer, etc.) - Verified accounts are those for whom the individual identity has been verified through an authoritative source (i.e. SSN validation)	Met		
WP-19	Enable Individual users to self-declare income information for use in plan comparison. Persist this information for later sessions if the user has created an Exchange Web Portal account	Validated	<p>In the Portal, information is persisted during the entire application process. The user can logout of the application right after entering the income information, then log back in to pick up the application from the last saved point and continue with the process.</p> <p>Income information is not persisted from the pre-screening step to the application process. This will be a customization to the Portal.</p>	
WP-20	Enable Individual users to compare plans based on factors such as: <ul style="list-style-type: none"> ▪ Price/premium payment ▪ Deductible ▪ Metal Rating (bronze, silver, gold, platinum) ▪ Quality assessment ▪ Provider availability ▪ Benefit structure ▪ Product Type (e.g. Vision, Dental, etc.) ▪ Member-provided feedback rating" 	Met		
WP-21	Provide multiple summary and detail levels of plan comparison information	Met		
WP-22	Enable users to look up the providers that are affiliated with specific plans and affiliation type (i.e. Tiered PPO model).	Validated	For each plan there will be a link to the provider directory housed on each Carrier's website. This will be available in the Portal.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-23	Provide ability for Issuers to upload supporting documentation to the plan selection tool	Validated	VHC portal will provide a "Download Plan Details" link where a PDF of the Summary of Benefits will be linked to via WebCenter.	
WP-24	Provide a plan selection recommendation engine or wizard that can filter initial results based upon additional user preference and input.	Validated	VHC portal allows users to filter plans according to user preferences. The filters narrow down the list of displayed plans to help users see the plans that match the user criteria.	
WP-25	Provide capability for users to download additional supporting plan documentation as provided by the Issuer	Validated	VHC portal will provide a "Download Plan Details" link where a PDF of the Summary of Benefits will be linked to via WebCenter.	
WP-26	Provide calculator functionality for Individuals to estimate their premiums including potential premium tax credit subsidies and cost sharing reductions	Validated	The premium assistance tax calculator allows individuals to estimate premiums, including potential premium tax credit subsidies, and cost sharing reductions. A calculator will also be available on the VHC Home Page.	
WP-27	Provide a dynamic application entry engine to collect information required to determine eligibility for health and human service programs. The system shall tailor the application process based upon user response to questions.	Met		
WP-28	Provide a progress bar to show users where they are in the application process	Met		
WP-29	Enable Individual users to submit information for eligibility, for example: SSN Address Date of birth Name Household income"	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-30	Provide status of eligibility request received from the eligibility service	Validated	Users can see the rationale of why they were deemed eligible after submitting an application under "Find out why." They can also check on the status of their eligibility determination under My Account if it is pending caseworker review. The link to the eligibility system will be done during the I/E implementation.	
WP-31	Display eligibility results received from the eligibility service	Met		
WP-32	Enable Individual users to apply for benefits eligibility using alternate income verification (i.e. paper verification).	Validated	OneGate provides a framework for the portal-based document upload and other functionalities related to alternate income verification.	
WP-33	Enable Individual users to enroll in a plan which they have selected	Met		
WP-34	Enable Individual users to reenroll (renew) in a plan which they have selected	Validated	The portal will provide the individual with an option to reenroll in the future release.	
WP-35	Allow users to set up payment options for their selected plan(s)	Duplicate	Duplicate of PPRFP-002	
WP-36	Allow users to make recurring and scheduled electronic premium payments through the Exchange portal	Duplicate	Duplicate of PPRFP-002	
WP-37	Allow authorized users the ability to view their payment histories on the Web Portal	Duplicate	Duplicate of FM-053	
WP-38	Enable Employer to set up SHOP plan selection(s)	Met		
WP-39	Enable Employees to compare available SHOP plans	Met		
WP-40	Enable Employees to enroll or unenroll in SHOP plan	Met		
WP-41	Allow employers to set up payment options for premiums	Duplicate	Duplicate of PPRFP-033	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-42	Enable users of all plans to view their enrollment and payment status, plan details, and notification history	Met	Viewing Enrollment is documented in the FSD 2.1 Enrollment. Payment Status is documented in the Premium Process and Financial Management FSDs.	
WP-43	Enable users to upload eligibility documents using their camera equipped mobile device	Deferred		
WP-44	Provide role based access to Exchange Portal content	Met		
WP-45	Provide role based portal administration function	Met		
WP-46	View Invoice and invoice details for Individual, Employer and Issuers	Duplicate	FM-044	
WP-47	Make electric payment for Individual, Employer, and Issuer	Validated	This is satisfied in Premium Process and Financial Management FSDs for requirements: PPRFP-002 PPRFP-033	
WP-48	View notification history for Individuals, Employers, and Employees	Validated	This will be covered in the Notices FSD.	
WP-49	Provide customizable portal views and functionality based on user role for "super users" (e.g. Navigator, Broker, caseworker, etc.)	Met		
WP-50	Provide a dashboard of key information and metrics for "super users" including electronic notice posting area.	Validated	Moved to the Reporting FSD.	
WP-51	Allow TPAs/QHP Issuers to access the Exchange through a customized portal in order to add, manage, certify, recertify, and delete their health plans.	Deferred		
WP-52	Allow SHOP owners access to the Exchange through a custom portal and add or manage health plan options for their employees.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
WP-53	Allow SHOP employees to access a custom portal where they can view and select among their plans options, enroll their family and manage changes in circumstances.	Met		

Key Assumptions and Considerations

Assumptions

The text on the Home Page has more flexibility to change than in other areas of the application.

Functional Considerations

Web Portal does not have true design items as are seen in other areas of the application.

Solution / Technical Considerations

- OneGate integration with Siebel CRM, Thunderhead NOW, Renaissance, Oracle Identity Manager solution, and external faces as required by the Individual.
- Small Business and Customer Support processes.

Web Portal Design Details

Interfaces and Data Elements

OneGate integration with Siebel, Thunderhead NOW, Renaissance, Identity Management solution, and external faces as required by the Individual and Small Business processes.

User Interface (Existing Screen)

None

New Screens

- VT Health Connect Home Pages
- VT Health Connect Information Page

VT Health Home Page Detailed Design

This section describes the business and systems processes for a VHC Home Page. From the VHC Home Page there are links to separate portal areas for Individuals, Small Business (Employers and Employees), and Navigators which allow you to; determine eligibility for MAGI Medicaid and other subsidy programs, view plans, compare plans, select plans, enroll and disenroll from QHPs, and, update account information when required.

From the Home Page users will be able to link to FAQs, Events, Help, DCF Info Page, Outreach programs, and any other links that the SOV decides to include in the Home Page. The look and feel and content of the Home Page will be designed by the SOV, an external design team, and CGI.

Business Requirement Specification

The hyperlink for the “VT Health Connect Info Page” will be presented to all users when they navigate to the VHC Home Page. Users will be able to click a hyperlink and see more information about specific State health and human services programs without logging in.

Source to Target Data Mappings

There is no existing source since these are new fields.

Data Characteristics

- When the hyperlink is clicked, the VHC Home Page will be displayed
- Users will be able to link to FAQs, Events, Help, DCF Info Page, Outreach programs or any other links that the SOV decides to include in the Home Page.
- When a user is redirected outside of the VHC, a message will be displayed notifying the user that they will be leaving the site.

Screen Display in Application Flow

This screen will appear after the user clicks a hyperlink on the World Wide Web.

Trigger for Screen Display

This screen will appear after the user clicks a hyperlink on the World Wide Web.

Data Processing Logic

The user will be able to return to the VHC Home Page or will be able to click to an external web site if they are interested in gaining further information on one of the processes.

Third Party Sites and Portals

Third party sites might be launched if the user clicks one of the links on the Home Page.

VT-Health Connect Information Page Detailed Design

This section describes the business and systems processes for a VHC user to view anonymous Department of Children and Families (DCF) plans and services. The “DCF Info Page” screen will appear as a hyperlink from the general VT-Health Connect Home Page. The hyperlink to this screen will automatically appear on the Home Page for any user to view. The look and feel of the Information Page, along with the content will be designed by the SOV, an external design team and CGI

The “DCF Info Page” will allow the user to view general information about the State of Vermont’s child and family services programs without logging into the portal. Users will be able to navigate to specific State program Websites from this page for more information. Below is a mock-up example and needs to be further designed by the SOV and the external design team.

Business Requirement Specification

The hyperlink for the “VT Health Connect Info Page” will be presented to all users when they navigate to the VHC Home Page. Users will be able to click a hyperlink and see more information about specific State health and human services programs without logging in.

This screen satisfies the business need stating that all users shall be able to view general information about the State’s child and family services programs without logging into the portal.

Source to Target Data Mappings

There is no existing source since these are new fields.

Data Characteristics

- When the “Vermont Health Connect Home Page – Get More Information on DCF Services” hyperlink is clicked, navigate to “DCF Info Page.”
- When the “DCF Info Page – Return Home” hyperlink is clicked, the user will be redirected to the VHC Home Page.

- If any specific hyperlink on the “DCF Info Page” is clicked, the user will be redirected to that specific program website.

Screen Display in Application Flow

- This screen will appear after the user clicks a hyperlink on the VHC Home Page.
- This hyperlink and the page attached to it will be available in all portal views.

Trigger for Screen Display

The user will log into the VHC and will always see the hyperlink “Get More Information on DCF Services” on the home screen. The user can click on this hyperlink to see the list of program offerings, and navigate to the respective web pages outside of the VHC.

Data Processing Logic

The user will be able to return to the VHC Home Page or will be able to click to an external web site if they are interested in gaining further information on one of the processes.

Third Party Sites and Portals

Third party sites might be launched if the user clicks any of the links on the DHS Info Page.

New Testing considerations

Since these Pages can be entered by anybody, no special login is required.

This Exhibit shows an example of two test conditions:

Exhibit 79: Web Portal Test Conditions

Functional Area	Technical Component	Usage Scenario
Home Page	Hyperlink to specified page and content	SC 1: Individual selects hyperlink to Vermont Health Connect. Outcome: Home Page for VHC is displayed. SC 2: Individual selects hyperlink to DCF Info Page from the Vermont Health Connect Home Page. Outcome: DCF Info Page is displayed.

21.3 Enrollment

The Individual Enrollment, Disenrollment and Change of Circumstance Functional Area of the VHC determines and regulates how users access, review, enroll and dis-enroll in a QHP or Medicaid plan and modify account information.

21.3.1 Enrollment FSD

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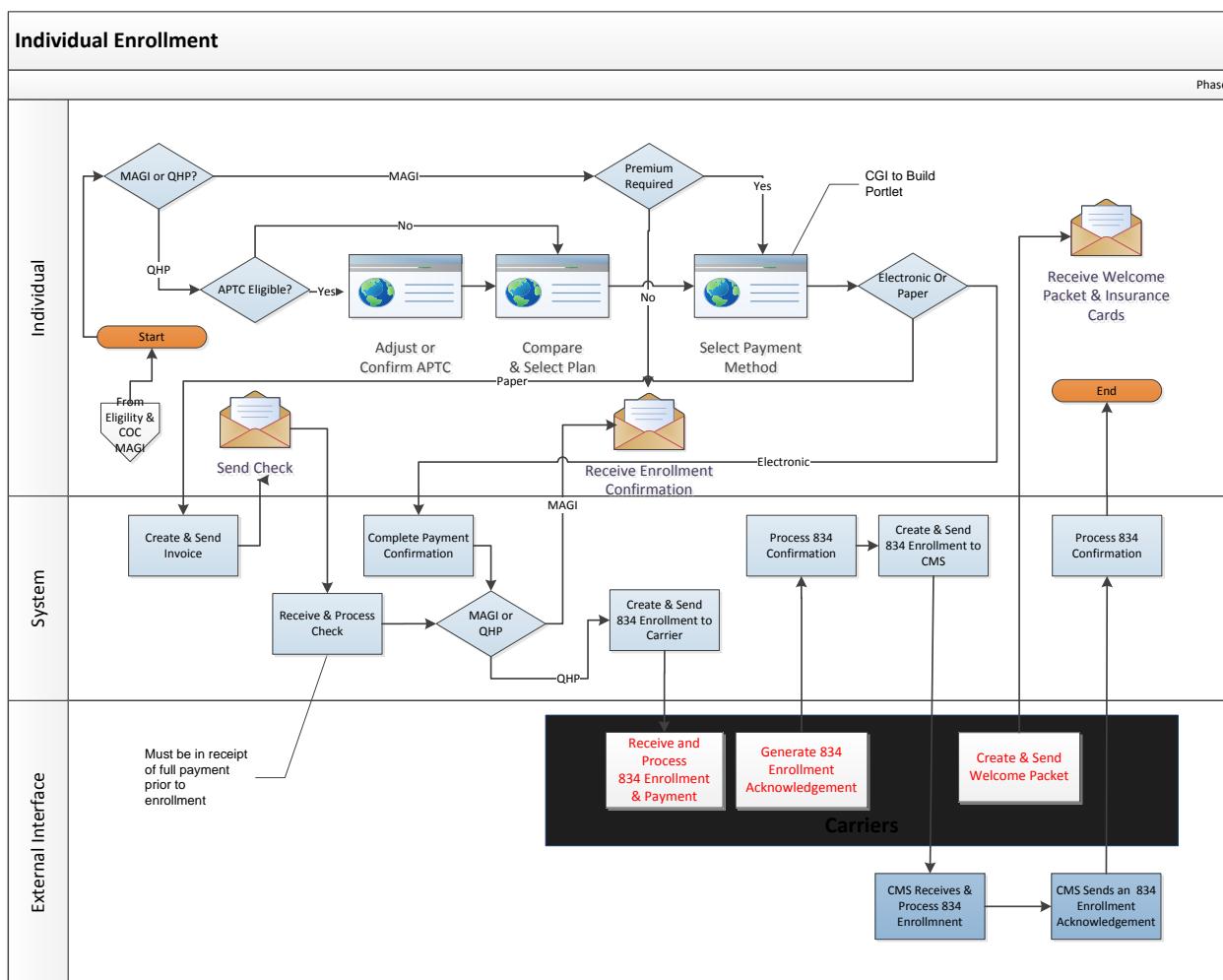
Enrollment Business Process

The Enrollment Business Process describes the system functionality that facilitates viewing, comparing, selecting, paying and enrollment in a QHP or MAGI Medicaid program.

Business Process Diagram

This Exhibit below illustrates the Enrollment Functional Area Process Diagram:

Exhibit 80: Business Process Flow – Enrollment



The *Individual Enrollment* functional area allows Individuals to view, compare, select and enroll in a QHP or Medicaid plan:

- Prior to viewing available plans, the individual who is eligible for APTC can designate how to apply their subsidy to either reduce monthly premiums or wait until the end of the year and reduce their federal tax obligation when filing their federal income tax returns.
- The system will only display QHPs that are available to that individual or family.
- The system will display plans that are filtered and sorted. The individual will be able to filter or reduce the result set of plans according to carrier, plan type, price/premium payment, and deductible.
- The system displays the results and the individual can compare plan benefit packages for up to three different plan options for QHP.
- After plan selection, the individual will be directed to the Plan Selection Cart Screen where the individual or all the family members can be enrolled.
- Set-up and management of premium payments are detailed in the Premium Processing spec.
- When the Vermont Health Connect receives the full premium payment from the enrollee(s), the system creates and sends an 834 Enrollment Transaction to the QHP Carrier. The Carrier then enrolls the individual(s) into the plan and creates/sends the Welcome Packet and Insurance cards to the new enrollee(s).
- The 834 transmission to the Carrier consists of a two part loop as illustrated in this Exhibit:

Exhibit 81: Summary 834

Transaction Type	VT Health Connect -> QHP Carrier	VT Health Connect <- QHP Carrier
Initial Enrollment	X	
Confirmation/Effectuation		X

- Upon successful completion of this transmission loop, the system creates and sends an 834 Enrollment transaction to CMS to notify them of the enrollment. Notification to CMS will be done in a nightly batch process.

Requirements Addressed

This Exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 82: Requirements Addressed for Individual Enrollment

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-001	Prepare an enrollment questionnaire to gather individual preferences and help refine choices of plan to be displayed.	Validated		
EN-002	Store enrollment questionnaire responses and display plan choices based on questionnaire / filtering criteria.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-003	Based on issuer and plan information gathered, display plan cost and availability.	Met		
EN-004	As a default, only display health plans that have been certified by the exchange, are open to additional enrollment, and are available in the individual's geographic area.	Met		
EN-005	Display actual plan cost based on applicable rating factors (individuals covered, age, geography, etc.) provided by the individual during the application process.	Met		
EN-006	If applicable, display an adjusted plan cost based on reduced cost sharing or tax credit advance eligibility.	Met		
EN-007	Provide an individual the capability to apply the Tax Credit Advance (if eligible) to his / her monthly premium payment or decline the advance, allowing individuals the ability to alternatively claim tax credits at time of annual income tax filing.	Duplicate	Duplicate of EL-011	
EN-008	Generate written notification to individuals who select at Tax Credit Advance of the possibility of tax penalties / liabilities at time of tax filing should their annual income increase.	Validated	Moved to Notices	
EN-009	Generate on-screen notification to individuals who select at Tax Credit Advance of the possibility of tax penalties / liabilities at time of tax filing should their annual income increase.	Validated	An alert will be displayed from the Portal to notify individuals.	
EN-010	Provide capability to display a detailed comparison of available health plans based on individual preferences.	Met		
EN-011	Provide capability for individuals to adjust individual preferences and update display / comparison of available qualified health plans. This capability includes the ability to further refine or constrain filtering criteria to either display a greater or lesser number of plan choices.	Met		
EN-012	Provide hyperlinks to Issuer/Plan sites for individuals to obtain further information from Issuers	Met		
EN-013	Provide capability for an individual to select a QHP and initiate the enrollment process.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-014	Prevent individuals that have a current QHP selection pending from adding a new QHP or changing their pending selection.	Validated	This is done in the OneGate Solution, but cannot be demonstrated.	
EN-015	Once a plan is selected, direct an individual to issuer-specific instructions on payment remittance for monthly premiums.	Deleted		
EN-016	Update an individual's account to reflect plan selection and the effective plan-year.	Met		
EN-017	After plan selection, initiate the plan enrollment process / electronic transaction to applicable issuers.	Validated	Enrollments will be transmitted to the Carriers via an 834 transaction.	
EN-018	If individuals directly enroll in health plans through the issuer, update an individual's account information based on enrollment information provided by the issuer.	Deleted		
EN-019	Prepare an electronic, real-time transmission of information necessary in order for the qualified health plan issuer to provide a welcome package and identification card to the individual and to implement advance premium tax credits and cost-sharing reductions, as applicable.	Validated	Enrollments will be transmitted to the Carriers via an 834 transaction.	
EN-020	Record and store current plan enrollment information for all individuals registered on the Exchange.	Met		
EN-021	Process in real-time, the electronic confirmation / acknowledgement of receipt of enrollment transaction from issuer.	Validated	Confirmations/effe ctuations will be received and processed via an 834 transaction from the Carriers.	
EN-022	Prepare an electronic notice to CMS with a minimum dataset of information regarding an individual's enrollment in a qualified health plan through the Exchange, following the receipt of acknowledgement from the issuer.	Validated	Enrollments will be transmitted to CMS via an 834 transaction following the receipt of acknowledgement from the Carrier.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-023	Prepare and electronic, real-time electronic transmission to the issuer of an individual's selected qualified health plan regarding changes to the individual's information, including to his or her levels of advance premium tax credits or cost-sharing reductions, or regarding a decision by an individual to renew his or her enrollment in the qualified health plan.	Validated	Changes will be transmitted to the Carriers via an 834 transaction.	
EN-024	Process the electronic confirmation / acknowledgement of receipt of enrollment changes received by an issuer.	Validated	Confirmations/ effectuations will be received and processed via an 834 transaction from the Carriers.	
EN-025	Provide capability to receive electronic notifications from issuers regarding disenrollment and initiate disenrollment process	Validated	This will be done via a manual process to customer support.	
EN-026	Provide the capability for an individual to request a voluntary disenrollment from a QHP.	Validated	This is done in OG Release 3.2.2.	
EN-032	After an individual has been determined eligible to select a QHP, determine the next available period for open enrollment. The open enrollment period should be tracked separately from timeframes for eligibility renewals for Medicaid/CHIP/BHP/Tax Credits.	Validated	The next open enrollment is a fixed date range and will be displayed in the Portal Solution.	
EN-034	Prepare written notification to individuals regarding eligibility for enrollment periods.	Duplicate	Notice NO-031	
EN-035	Prepare on-screen notification to individuals regarding eligibility for enrollment periods.	Validated	This will be an alert on the Home or Landing Page.	
EN-036	Periodically and on an ad hoc basis provide electronic report to issuers about individual QHP enrollment data	Validated	Moved to Reporting	
EN-039	Generate annual report to individual about QHP enrollment	Deferred	Moved to Reporting	
EN-040	Generate annual report to IRS about QHP enrollment	Deferred	Moved to Reporting	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
MO-023	Allow for real time and paper enrollment into Medicaid health plans for all eligible (i.e., federal and state medical assistance programs such as Medicaid, CHIP)	Validated	A paper application will be accepted and process by the Call Center for MAGI Medicaid until the I/E project is completed. For QHPs, a paper application will be accepted and processed by the Call Center.	
MO-024	Allow Medicaid-eligible individuals to view available plans in the plan selection module with the same level of functionality offered to individuals shopping in the commercial market	Met		
MO-025	Provide a mechanism to determine plan assignment, defined by the DCF, if an individual fails to select a plan within the required timeframe.	Validated	This will be met via a workflow CRM Solution.	
MO-026	Allow for retroactive plan enrollment based on criteria established by DCF.	Validated	This will be met via a workflow CRM Solution.	
MO-027	Transmit plan selection electronically based on DCF defined criteria.	Validated	This will be done via 834 transactions.	

Key Assumptions and Considerations

Assumptions

- Assumptions
 - ▶ The text on the homepage has more flexibility to change than in other areas of the application.
 - ▶ An interface will be developed to create 834 enrollment transactions to Carriers.
 - ▶ An interface will be developed to process 834 enrollment confirmation/effectuations transactions.
 - ▶ An interface will be developed to create CMS 834 confirmed enrollment transactions.
 - ▶ An 834 transmission data repository will be developed to save a snapshot of all transmitted records.
 - ▶ Data mapping of Siebel CRM data to the 834 transmission data repository and an 834 Interface Document and 834 Companion Guide will be developed.
 - ▶ Internal URLs will be resolved by the development team.
 - ▶ Screens will be developed to obtain payment information and choices.
 - ▶ The premium processor application will generate invoices, process payments, and transmit payment transactions that will trigger enrollment confirmation/effectuations.
 - ▶ An on-screen notification of the possibility of tax penalties/liabilities to individuals selecting a Tax Credit Advance will be generated.

- ▶ OneGate will prevent individuals that have a current QHP selection pending from adding a new QHP or change their pending selection.
- Constraints which apply
 - ▶ 834 transactions formatting will comply with the 834 Interface Document and 834 Companion Guide.
- Timing with other functions
 - ▶ The push of 834 transmissions to Carrier Web Services will coincide with their cyclical processing. This will be a nightly batch process.
- Known dependencies, predecessors and successors
 - ▶ Processing of 834 enrollment confirmation/effectuations from Carrier.
 - ▶ Creation of and transmission to CMS of confirmed 834 Enrollment.

Functional Considerations

- Develop an interface that will extract an Individual's Siebel CRM data to create an outbound 834 Enrollment transaction, store the 834 data in an 834 transaction repository, and transmit the 834 to the Carrier.
- Develop an interface that will update the Individuals Siebel CRM data and the 834 repository when the 834 confirmation/effectuation of enrollment is received.
- Develop an interface to create the CMS 834 confirmed enrollment transaction, store it in the 834 transaction repository, and send it to CMS.
- All 834 transactions will be sent nightly in a batch process.

Solution / Technical Considerations

OneGate integration with Siebel CRM, Thunderhead NOW, Benissance, Oracle Identity Manager Solution, and external faces as required for the Individual Enrollment.

New Testing considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts. (Note: the complete list of roles is in discussion with SOV – Action Item due date June 3, 2013)
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login:
- Below is an example of two test conditions.

Exhibit 83: Individual Enrollment Test Conditions

Functional Area	Technical Component	Usage Scenario
Enrollment	834 Enrollment Transmission to the Carrier	<p>SC 1: Individual "A" logs into the VHC, enrolls in a QHP and pays the full amount by credit card. Outcome: Individual "A" is included in the 834 batch transmission to the selected Carrier that night.</p> <p>SC 2: Individual "A" logs into the VHC, enrolls in a QHP and decides to wait for an invoice and pay by mail. Outcome: Individual "A" is NOT included in the 834 batch transmission to the selected Carrier that night.</p>

Enrollment Design Details
Interfaces and Data Elements

- 834 outbound individual enrollment transaction
- 834 inbound confirmation/effectuation of enrollment from Carriers and CMS
- 834 outbound enrollment confirmation/effectuation to CMS
- 834 enrollment transaction scenarios

Data

- Siebel CRM
- 834 Transaction repository
- Oracle SOA B2B X12 834 enrollment TX maps
- 834 Interface Control Document and 834 Companion Guide data mapping

Reports and Notices Generated

Not applicable.

User Interface (Existing Screen)

Not applicable.

Business Rules

The Business Rules still need to be addressed with the SOV. This information will be provided in a future version of this deliverable.

21.3.2 Disenrollment FSD

Attendee/Contributor(s) List

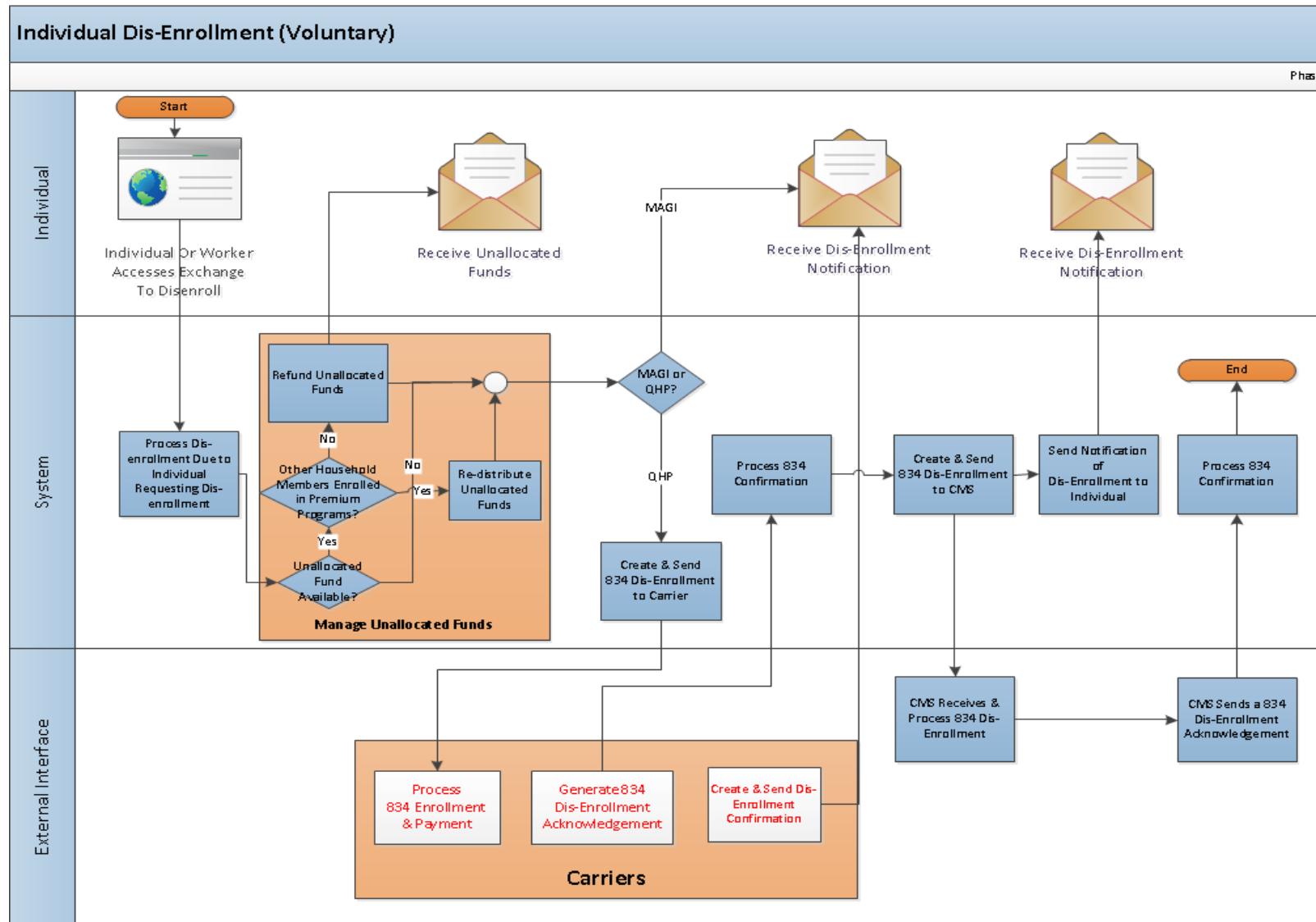
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Disenrollment Process

Business Process Diagram

The Disenrollment Business Process describes the system functionality that facilitates voluntary and involuntary disenrollment (termination) from QHP and MAGI programs.

This Exhibit illustrates the Voluntary Disenrollment Functional Area Process Diagram.

Exhibit 84: Business Process Flow – Individual Dis-Enrollment (Voluntary)


The *Individual Disenrollment (Voluntary)* functional area allows the individual or the VT Health Connect Worker to access the VT Health Connect to Disenroll from a QHP or Medicaid plan.

- The OneGate portal will allow an individual to request disenrollment from a QHP, or the individual can contact the VT Health Connect and request a disenrollment.
- The disenrollment confirmation will trigger the generation of the 834 disenroll transaction.
- The 834 disenroll transaction will be formatted from the individual's data that is contained in the Siebel CRM.
- The 834 transmission to the Carrier consists of 2 parts as illustrated below:

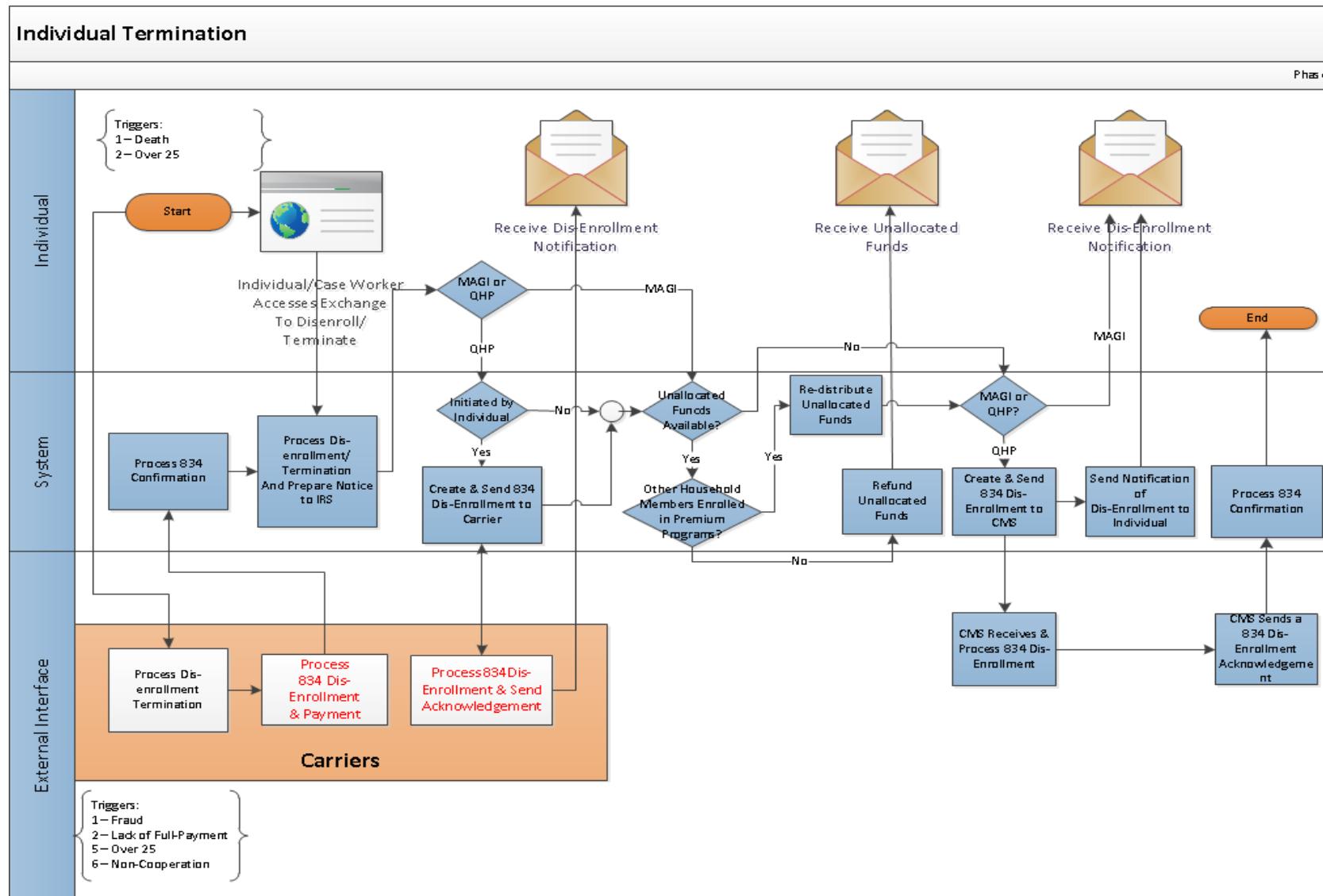
Exhibit 85: 834 Summary

Transaction Type	VT HBE -> QHP Issuer	VT HBE <- QHP Issuer
Termination	X	X

Upon successful completion of this transmission loop, the system will create and send an 834 Disenrollment transaction to CMS to notify them of the disenrollment.

This Exhibit illustrates the Voluntary Disenrollment Functional Area Process Diagram.

Exhibit 86: Business Process Flow – Voluntary Disenrollment Functional Area Process Diagram



The *Individual Disenrollment (Termination)* functional area is initiated by either the VT Health Connect or the Carriers. When this process is initiated by the VT Health Connect, triggers include death and turning 26 years old. When this process is initiated by the Carriers, triggers include fraud, lack of full-payment, turning 26 years old and non-cooperation with the VT Health Connect. See the exhibit Health Care Closure and Denial Codes for the list of termination reasons.

- The OneGate portal will allow an individual to request disenrollment from a QHP or the individual can contact the VT Health Connect and request a disenrollment.
- The disenrollment confirmation will trigger the generation of the 834 disenroll transaction.
- The 834 disenroll transaction will be formatted from the individual's data that is contained in the Siebel CRM. This is further detailed in the Premium Processing and Financial Management requirements.
- The 834 disenroll transaction will be sent to the Carrier through the Oracle SOA B2B X12 Health Adapter software suite.
- The Carrier will send an 834 disenroll confirmation/effectuation transaction back to VT Health Connect.
- The receipt of the Carrier 834 disenroll confirmation/effectuation will trigger the process that updates the individual's Siebel CRM data to reflect a disenrollment status.
- Unallocated funds will be returned to the individual unless other household members remain enrolled in other premium programs such as QHP or CHIP. This will be handled by the Premium Processor.

The 834 transmission to the Carrier consists of two parts as illustrated below:

Transaction Type	VT HBE -> QHP Issuer	VT HBE <- QHP Issuer
Termination	X	X

Upon successful completion of this transmission loop, the system will create and send an 834 Disenrollment transaction to CMS to notify them of the disenrollment.

Requirements Addressed

This Exhibit includes requirements which are "Met" by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 87: Requirements Addressed for Individual Disenrollment

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-025	Provide capability to receive electronic notifications from issuers regarding disenrollment and initiate disenrollment process	Validated	This will be done via 834 transaction loop.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-026	Provide the capability for an individual to request a voluntary disenrollment from a QHP.	Met		
EN-027	If conditions for a voluntary disenrollment (e.g. issuer notifies Exchange of failure to pay QHP premiums beyond the grace period, Issuer or Exchange reports a change in eligibility, etc.), initiate the disenrollment process.	Validated	This requirement will be met by the 834 transaction loop and the existing Portal functionality.	
EN-028	If an individual initiates a voluntary disenrollment through the Exchange and not directly with the Issuer, produce an electronic notification to the Issuer to disenroll an individual.	Validated	This will be done via 834 transaction loop.	
EN-029	Update user accounts based on disenrollment notification from issuers or disenrollments initiated by the Exchange.	Validated	This will be done via 834 transaction loop and CRM workflows.	
EN-030	Prepare a notice to CMS with a minimum dataset of information regarding an individual's disenrollment from a qualified health plan through the Exchange.	Validated	This will be done via 834 transaction loop.	

Key Assumptions and Considerations

Assumptions

Assumptions:

- An interface will be developed to create 834 disenrollment transactions to Carriers.
- An interface will be developed to process 834 disenrollment confirmation/effectuation transactions.
- An interface will be developed to create CMS 834 confirmed/effectuated disenrollment transactions.
- An 834 transmission data repository will be developed.
- Data mapping of Siebel CRM data to the 834 transmission data repository and an 834 Interface Control Document and Companion Guide will be developed.
- Internal URLs will be resolved by the development team.
- The premium processor application will re-distribute or return unallocated funds based upon relevant business rules.

Constraints that apply:

834 transactions formatting will comply with the 834 Interface Control Document and the 834 Companion Guide.

Timing with other functions:

- The push of 834 transmissions to Carrier Web Services will coincide with their cyclical processing.
- The push of the 834 transmissions will be a nightly batch job.

Known dependencies, predecessors and successors:

- Processing of 834 disenrollment confirmation/effectuations from the Carrier.
- Creation of and transmission to CMS of confirmed/effectuated 834 Disenrollment.

Functional Considerations

The following functional items considered:

- Develop an interface that will extract an individual's Siebel CRM data to create an outbound 834 Disenrollment transaction, store the 834 data in an 834 transaction repository, and transmit the 834 to the Carrier.
- Develop an interface application that will update the individuals Siebel CRM data and the 834 repository when the 834 confirmation of disenrollment is received.
- Develop an interface application to create the CMS 834 confirmed/effectuated disenrollment transaction, store it in the 834 transaction repository, and send it to CMS.

Solution / Technical Considerations

The following solution and technical items should be considered:

OneGate integration with Siebel CRM, Thunderhead NOW, Benaisance, Oracle Identity Manager Solution, and external faces as required for the individual Enrollment.

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login.

This Exhibit provides an example of a test condition:

Exhibit 88: Disenrollment Test Conditions

Functional Area	Technical Component	Usage Scenario
Disenrollment	834 Disenrollment Transmission to the Carrier	SC 1: Individual "A" logs into the VHC, disenrolls in a QHP Outcome: Exchange process disenrollments by refunding unallocated fund, sending 834 disenrollment transaction to the Carrier and CMS

Disenrollment Design Details

Interfaces and Data Elements

- 834 outbound individual disenrollment transaction
- 834 inbound confirmation of disenrollment
- 834 outbound disenrollment confirmation to CMS
- 834 disenrollment transaction scenarios

Data

- Siebel CRM
- 834 Transaction repository
- Oracle SOA B2B X12 834 enrollment TX maps
- 834 companion guide data mapping
- 834 Interface Control Document

Reports and Notices Generated

Not applicable.

User Interface (Existing Screen)

Not applicable.

Business Rules

This Exhibit displays the Health Care Closure and Denial Codes:

Exhibit 89: Health Care Closure and Denial Codes

Code	Reason	Program	Status
01	Client did not cooperate with the Department in determining eligibility.	all programs	Active
03	Client requested closure or denial.	all programs	Active
04	Client's present whereabouts are unknown.	all programs	Active
05	Client is no longer in the household.	all programs	Active
06	Client is not pregnant.	Medicaid, Dr. D	Retired
07	Client is over 17 years of age.	Dr. D	Retired
08	Client has medical insurance or Medicare now or had insurance in the last 12 months.	VHAP	Active
10	Resources are more than Department standards allow for family size.	Medicaid	Active
11	Income is more than Department standards allow for basic living expenses for family size.	Medicaid, Dr. D, VHAP	Active
12	Client has been determined to be an ineligible student.	VHAP	Active
13	Student failed to obtain medical ins. that was available through their school or student has access to coverage under a parent's policy.	VHAP	Active
14	Client is not aged or disabled.	VRX/VS/VSX, VPharm, HVP	Active

Code	Reason	Program	Status
15	Client has insurance coverage for prescriptions.	VRX/VS/VSX, VPharm, HVP	Active
16	Income is more than Department standards allow for basic living expenses for family size.	VRX/VS/VSX, VPharm, HVP	Active
17	Not a parent or caretaker relative of a dependent child (less than 21 years old) who lives in the household.	VHAP	Retired
18	Medicaid will continue for up to 36 months because Reach Up ended due to increased earnings and client received assistance for at least 3 of the last 6 months.	Medicaid (TM)	Active
19	Client moved to another household but their Medicaid coverage could be continued there.	all programs	Active
20	Client is deceased.	all programs	Active
21	Client is not a legal alien and not a U.S. citizen, or client did not comply with citizenship verification requirements.	all programs	Active
22	Client no longer lives in Vermont.	all programs	Active
23	Client lives in public institution or is in care outside the household.	all programs	Active
24	Client is no longer in the care or custody of Family Services.	Medicaid	Active
27	Decision is a result of a fair hearing.	all programs	Active
28	Active closure for clients who are on VHAP, VHAP-Rx, VScript, VScript-Expanded, VPharm, or HVP and are now eligible for Medicaid.	VHAP, VRX/VS/VSX, VPharm, HVP	Active
29	SSA has determined that the client is not disabled. May only be appealed to SSA.	Medicaid	Active
30	Katie Beckett (DCHC) applicant is disabled but does not meet the Katie Beckett level of care criteria.	Medicaid (DCHC)	Active
31	From the information given by doctors, hospital, or other medical sources, DDS has determined that client is not blind or disabled.	Medicaid	Active
32	No categorical eligibility. Client is at least 21, under 65, not disabled, not blind, and not caring for any children who meet RUFA age criteria.	Medicaid	Active
33	Medicaid will continue for up to 36 months because the Medicaid income standard has been exceeded due to increased earnings and client received assistance for at least 3 of the last 6 months.	Medicaid (TM)	Active
34	Medicaid will continue for up to 4 months because the Medicaid income standard has been exceeded due to increased child support and client received assistance for at least 3 of the last 6 months.	Medicaid (TM)	Active
35	Current Medicaid eligibility period ends. A new period of Medicaid coverage cannot be authorized until client has reapplied for Medicaid and given proof that medical expenses will be more than the amount for which the client is responsible during a six month period.	Medicaid	Active
36	Applied income case for which adverse action deadline has passed.	Medicaid	Active
37	Medicaid is closing because Reach Up has closed.	Medicaid	Active
38	Medicaid is denied because Reach Up has been denied.	Medicaid	Active

Code	Reason	Program	Status
39	Medicaid will continue for up to 12 months because Reach Up has closed due to expiration of the 1/3 earnings exemption.	Medicaid (TM)	Active
40	Medicaid will continue for up to 12 months because Reach Up has closed due to expiration of the \$30 earnings disregard.	Medicaid (TM)	Active
41	Medicaid will continue for up to 4 months because Reach Up has closed due to excess child support.	Medicaid (TM)	Active
42	Closure will occur at the end of the six-month period of guaranteed eligibility for managed care.	managed care programs	Retired
43	Client requested removal from managed care.	managed care programs	Active
44	Client was not eligible for managed care.	managed care programs	Active
45	Client is no longer eligible for managed care.	managed care programs	Active
46	Client failed to pay VHAP premium.	VHAP	Retired
47	Client failed to pay the Dr. Dynasaur premium.	Dr. D	Retired
48	Client has been removed from managed care at plan request.	managed care programs	Active
49	Client has been removed from managed care due to an exemption by DVHA.	managed care programs	Active
50	Client eligibility for Medicaid must be reviewed by the closure date. They will receive a reminder letter before that date telling them what to do if they want benefits to continue.	all programs	Active
51	Client failed to pay the Working Disabled program fee.	Medicaid (WPWD)	Retired
52	Client is eligible for health care premium programs but coverage cannot start until initial premium bill is paid.	Dr. D, VHAP, VRX/VS/VSX, VPharm	Active
53	Client was eligible for health care premium programs but coverage did not start because initial premium bill was not paid.	Dr. D, VHAP, VRX/VS/VSX, VPharm	Active
54	Client failed to pay premium for ongoing coverage.	Dr. D, VHAP, VRX/VS/VSX, VPharm	Active
55	Client is eligible for health care programs without penalty, but coverage cannot start until initial premium bill or past pharmacy coverage period is paid.	VRX/VS/VSX, VPharm	Active
56	Client has not chosen a Prescription Drug Plan (PDP).	VPharm	Active
57	Client might be eligible for "extra help" (LIS), but client has not applied.	VPharm	Active
58	Client is entitled to Medicare benefits.	VRX/VS/VSX	Active
59	Client is not cooperating regarding medical support.	all programs	Active

Code	Reason	Program	Status
60	Client must provide employer insurance plan information by the due date on their Plan Information Request Letter.	ESI, CHAP	Active
61	Client must enroll in an ESI or Catamount plan by the due date on their plan sign-up letter.	ESI, CHAP	Active
62	Client did not repay benefits as required.	ESI, CHAP	Inactive
63	CHIPRA retroactive period due to past citizenship and identity closure/denial ends.	Medicaid	Retired
68	Active closure for pharmacy and HVP clients who are eligible for ESIA or CHAP.	VRX/VS/VSX, VPharm, HVP	Active
88	Department income standards were exceeded at desk review.	all programs	Active
99	Decision is result of a desk review.	all programs	Active

21.3.3 Change of Circumstance FSD

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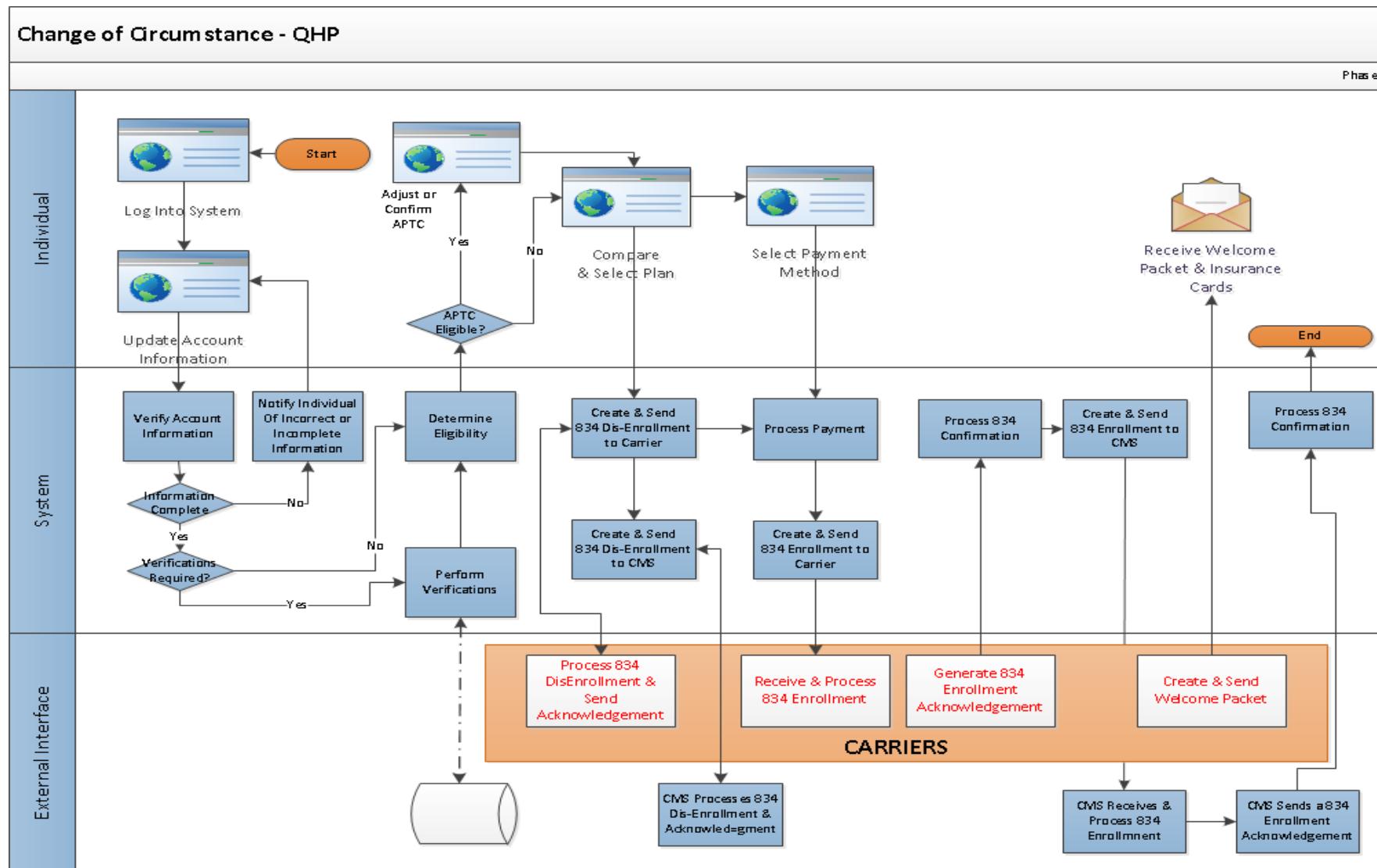
Change of Circumstance Process

Business Process Diagram

The Change of Circumstance Functional Area of the VHC processing is invoked through OneGate or the Siebel CRM. When an authorized Individual makes account changes, depending upon the type of change that occurs, a series of processes will be triggered. For example, certain changes will trigger a re-determination of eligibility or a re-determination of the APTC amount, while other changes will simply trigger an 834 Enrollment/Change Transaction to the Carrier and CMS. Whenever a life change or change in circumstance occurs, the individual is obligated to report these changes to the VHC.

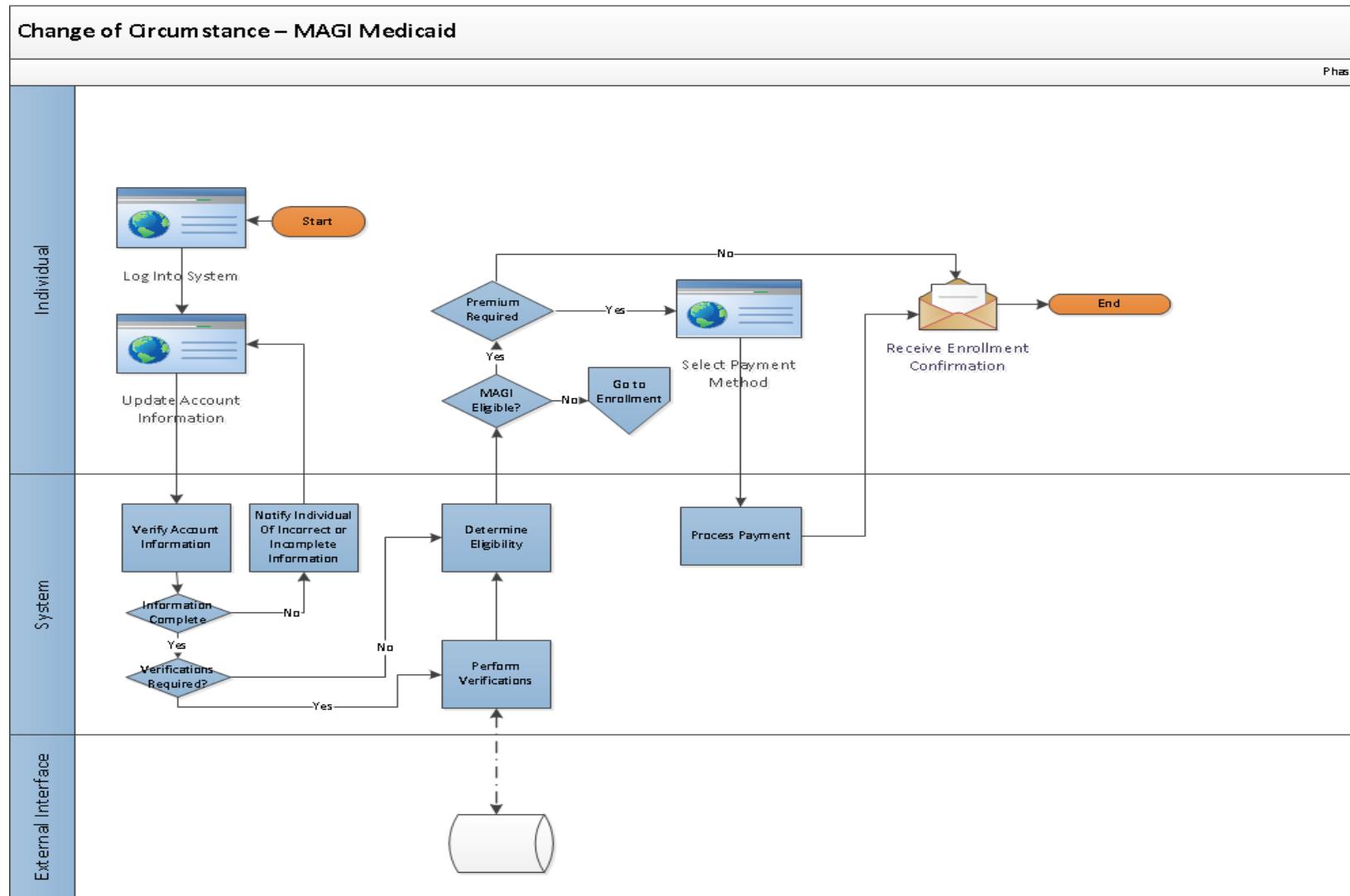
Depending upon the type of change that has occurred, for QHP, the change may qualify the individual to participate in an enrollment outside of the annual enrollment cycle. This is termed a "Special Enrollment". A list of qualifying events for special enrollments is illustrated in the Qualifying Events for Special Enrollments exhibit.

The QHP Change of Circumstance Business Process describes the system functionality that facilitates changing account information, and potentially re-determines eligibility, disenrolls from a plan, displays plans, compares plans, allows for selection, payment and enrollment in a QHP.

Exhibit 90: Change of Circumstance Business Process Flow


The Change of Circumstance - QHP functional area allows Individuals to change account information, be re-determined for eligibility and other subsidy programs, disenroll from current plan, view, compare, select, pay and enroll in a new QHP or Medicaid plan. This series of events is invoked whenever an Individual has a "life change." Life changes include getting married, getting divorced, income level increases or decreases, adds a dependent, loses a dependent, turns 26 and becomes Medicare eligible.

- The Individual, or person authorized by the Individual, will either contact the Call Center or invoke the VHC portal and login into the account.
- The My Account page will be accessed and changes will be made to the person's account information.
 - ▶ When the information is not complete, the system will ask the Individual to complete the information
 - ▶ When verifications are required, the system will invoke the processes to obtain the appropriate verifications. This includes self-attestation, Federal Services Data Hub and challenge questions. For a full description of the verification process, see the Application Electronic Functional Specification section
- The system will invoke the eligibility determination process and the Individual's eligibility for various programs and subsidies will change or remain the same
- Depending upon the type of change or event that occurred, the individual may be able to shop and enroll in a different QHP.
 - ▶ For a list of Qualifying Events for Special Enrollment Periods see the Exhibit – Qualifying Events for Special Enrollment Periods
- When an Individual decides to enroll in a different plan, the individual will be automatically disenrolled from the current plan, prior to enrollment into the new plan.
 - ▶ For details regarding the Enrollment Process, see the Enrollment Functional Specification section
 - ▶ For details regarding the Disenrollment Process, see the Disenrollment Functional Specification section
- As with the Enrollment and Disenrollment processes, the same series of 834 transaction loops will be processed
- Set-up and management of premium payments are detailed in the Premium Processing Functional Specification section

Exhibit 91: Change of Circumstance – MAGI Medicaid Functional Area Process Diagram


The Change of Circumstance – MAGI Medicaid functional area allows Individuals to change account information and be re-determined for eligibility and other subsidy programs. It is possible that the change may disqualify the individual for MAGI Medicaid and allow them to participate in a QHP.

- The Individual, or person authorized by the Individual, will either contact the Call Center or invoke the VHC portal and login into the account.
- The My Account page will be accessed and changes will be made to the person's account information.
 - ▶ When the information is not complete, the system will ask the Individual to complete the information
 - ▶ When verifications are required, the system will invoke the processes to obtain the appropriate verifications. This includes self-attestation, Federal Services Data Hub and challenge questions. For a full description of the verification process, see the Application Electronic Functional Specification
- The system will invoke the eligibility determination process and the Individual's eligibility for various programs and subsidies will change or remain the same. This is detailed in the Premium Processor Functional Specification.
- Depending upon the change, three possible paths may occur:
 - ▶ Whenever the individual is no longer eligible for MAGI Medicaid, the individual will have the opportunity to participate in a QHP and the process flow will follow that as described in the Enrollment Functional Specification.
 - ▶ Whenever the individual is required to pay a premium, this is possible for such programs as CHIP and Dr. Dinosaur, the system will process the invoice and billing as described in the Premium Processor Functional Specification.
 - ▶ The individual remains in their current program and the process terminate

Requirements Addressed

The following exhibit displays the number of the requirement (in the Ref Code column), the requirement description, and the status of the requirement. The status of the requirement is the current status at the time of submission of this document. And, the technical update with correct language about met is also listed.

Exhibit 92: Requirements Addressed for Individual Enrollment

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-031	When a plan is decertified, initiate the health plan enrollment process for affected individuals (based on special enrollment period rules).	Validated	A notice will be sent to the affected individuals 30 days in advance of the event. Information and instructions will be provided.	
EN-033	Prepare and provide communication to individuals about a mid-year plan decertification and notify need for plan selection / enrollment.	Duplicate	Duplicate of Plan Management Notice NO 30	

Key Assumptions and Considerations

Assumptions

- Assumptions
 - ▶ In the Portal, OneGate re-determines eligibility for all the data elements listed in the previous Exhibit
 - ▶ Siebel CRM does not have any automated eligibility re-determinations, but allows for a case manager to click a button in Siebel CRM to determine eligibility per their training.
 - ▶ An interface will be developed to create 834 enrollment/change transactions to Carriers.
 - ▶ An interface will be developed to process 834 enrollment/change confirmation transactions.
 - ▶ An interface application will be developed to create CMS 834 confirmed enrollment/change transactions.
 - ▶ An 834 transaction data repository will be developed.
 - ▶ Data mapping of Siebel CRM data to the 834 transaction data repository and 834 companion guide will be developed.
- Constraints which apply
 - ▶ 834 transactions formatting will comply with the 834 Interface Document and 834 Companion Guide
- Timing with other functions
 - ▶ The push of 834 transmissions to Carrier Web Services will coincide with their cyclical processing. This will be a nightly batch process.
- Known dependencies, predecessors and successors
 - ▶ Processing of 834 enrollment confirmation/effectuations from Carrier.
 - ▶ Creation of and transmission to CMS of confirmed 834 Enrollment.

Functional Considerations

The following functional items should be considered:

- Develop an interface that will extract an Individual's Siebel CRM data to create an outbound 834 Enrollment transaction, store the 834 data in an 834 transaction repository, and transmit the 834 to the Carrier.
- Develop an interface that will update the Individuals Siebel CRM data and the 834 repository when the 834 confirmation/effectuation of enrollment is received.
- Develop an interface to create the CMS 834 confirmed enrollment transaction, store it in the 834 transaction repository, and send to CMS.
- All 834 transactions will be sent nightly in a batch process.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate integration with Siebel CRM, Thunderhead NOW, Renaissance, Oracle Identity Manager Solution, and external interfaces as required for the Individual Change of Circumstance.

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts. (Note: the complete list of roles is in discussion with SOV – Action Item due date June 3, 2013)
- The tester must have the capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test conditions for the portal login.
- Below is an example of two test conditions.

Exhibit 93: Test Conditions

Functional Area	Technical Component	Usage Scenario
Enrollment	834 Disenrollment Transmission to the old Carrier 834 Enrollment Transmission to the new Carrier	SC 1: Individual loses the APTC subsidy, is allowed to pick and enroll in a different plan, and does that. Outcome: Individual is disenrolled from current plan and enrolled in a new plan.

Enrollment Design Details

Interfaces and Data Elements

- 834 outbound individual enrollment transaction
- 834 inbound confirmation/effectuation of enrollment from Carriers and CMS
- 834 outbound enrollment confirmation/effectuation to CMS
- 834 enrollment transaction scenarios

Data

- Siebel CRM
- 834 Transaction repository
- Oracle SOA B2B X12 834 enrollment TX maps
- 834 Interface Control Document and 834 Companion Guide data mapping

Exhibit 94: Data Elements that Trigger Eligibility Redetermination

Data Element that Can be Changed	Eligibility Redetermination
The following information can be changed for each Household Member:	
First Name	Yes
Last Name	Yes
Gender	Yes
Birth Date	Yes
Is this the person in charge of filing the family's taxes	Yes

Data Element that Can be Changed	Eligibility Redetermination
Did this person file a tax return last year	Yes
Is this person a US citizen or something else?	Yes
Social Security Number	Yes
Same for each family member	Yes
Street Address	Doesn't have to
City	Yes
State	Yes
County	Yes
Zip Code	Yes
Home Phone	Doesn't have to
Work Phone	Doesn't have to
Cell Phone	Doesn't have to
Email Address	Doesn't have to
The following information can be changed for each Household Member who is of appropriate age:	
Marital status	Yes
Native American/American Indian/Alaskan Native	Yes
Incarceration status	Yes
If women household members are pregnant	Yes
The following information can be changed for each Household Member who is not a US Citizen:	
Entry date to US	Yes
Legal status in US date	Yes
Indication if person worked at least 40 qualifying quarters of coverage under the Social Security Act	Yes
Visa Number	Yes
The following information can be changed for each child Household Member:	
Indication of Medicaid coverage	Yes
Indication of CHIP coverage	Yes
Indication of any other government-sponsored health coverage	Yes
The following information can be changed for the household:	
Indication on if the household will apply for programs that can make their health coverage cost less	Yes

Data Element that Can be Changed	Eligibility Redetermination
Indication on if the application for benefits will apply for everyone in the family	Yes
Contact preference	Yes
If everyone in the household lives in Hawaii and intends to reside there	Yes
If everyone in the family lives at home	Yes
Yearly modified adjusted gross income (MAGI) for last year for each household member	Yes
HoH's current income	Yes
Spouse of HoH's current income	Yes
Rights and Responsibilities approval	Yes
Indication if there is a person in the family who is enrolled in health insurance that gives minimum essential coverage	Yes
Indication on if there is a person in the family who is able to get health insurance through a job which gives minimum essential coverage	Yes
Indication on if the HoH and his/her spouse file a joint tax return last year	Yes
Indication on if the HoH agrees to file a tax return for this year	Yes
Indication on if the HoH received advance payments of a premium tax credit in a year for which he/she did not file a tax return.	Yes
HoH's relationship to each household member	Yes

Reports and Notices Generated

None

User Interface (Existing Screen)

Not applicable

New Screen

None

Business Rules

Rules for the Qualifying Events for Special Enrollments are listed in this Exhibit:

Exhibit 95: Qualifying Events for Special Enrollments

Type of Change	Potential Change to FPL%?	Qualify for SEP?	Communicate Change to Carrier?
Marital Status of Primary account holder			
Marriage	Y	Y	Y

Type of Change	Potential Change to FPL%?	Qualify for SEP?	Communicate Change to Carrier?
Death of spouse	Y	N	Y
Divorce or annulment	Y	N	Y
Legal Separation	Y	N	Y
Number of Dependents of Primary account holder			
Birth	Y	Y	Y
Adoption or placement for adoption	Y	Y	Y
Death of dependent child	Y	N	Y
Dependent child ages out (>26yrs. old)	Y	N (the primary account holder doesn't get an SEP, but the dependent DOES under loss of MEC)	Y
Becoming a Dependent			
Marriage, birth, adoption	Y	Y	Y
Individuals' Loss of minimum essential coverage			
Loss of coverage available through relationship with household member (this is inclusive of loss of MEC because of divorce, legal separation, expiration of dependent status, death of parent or spouse)	Y	Y	Y
Loss of employer sponsored coverage	Y	Y	Y
Loss of employer sponsored coverage due to employer non-payment	Y	Y	Y
QHP Decertification	N	Y	Y
Loss of public MEC (Medicaid, CHIP, CHP, VA, TRICARE, Peace Corps)	N	Y	Y
Permanent Change in Residence			
Inside existing coverage area (county) and enrollee gains access to New QHP	N	Y	Y
Outside existing coverage area (county) and enrollee gains access to new QHP	N	Y	Y

Type of Change	Potential Change to FPL%?	Qualify for SEP?	Communicate Change to Carrier?
Change in Immigration Status (INDIVIDUAL EXCHANGE ONLY)			
Gain of citizenship	N	Y	Y
Lawful presence	N	Y	Y
Change in APTC/CSR Eligibility for Enrollee or Dependent enrolled in the same QHP** (INDIVIDUAL EXCHANGE ONLY)			
Newly Eligible for APTC	Y (if change related to income)	Y	Y
Newly Ineligible for APTC	Y (if change related to income)	Y	Y
Change in Eligibility for CSR	Y (if change related to income)	Y	Y
Gain Other Minimum Essential Coverage (Verified Eligibility or Actual Enrollment)			
Reach the age of 65 (eligible for Medicare)			Y
Enlisting in the military (eligible for TriCare)			Y
Coverage newly available through spouse			Y
Eligibility for other IAPs begins (i.e., non-MAGI Medicaid, VA)			Y
Other			
Erroneous, unintentional, inadvertent enrollment that is the fault of the Exchange	N	Y	Y
QHP violates a material provision of its contract w/r/t the enrollee	N	Y	Y
Addition of AI/AN (American Indian/Alaska Native) Status	N	Y	Y
AI/AN (American Indian/Alaska Native)	N	Y	Y
Special Enrollment Request (I don't know what this means)			
Other exceptional circumstances	TBD	Y	Y

21.3.4 Individual Enrollment Information Reconciliation FSD

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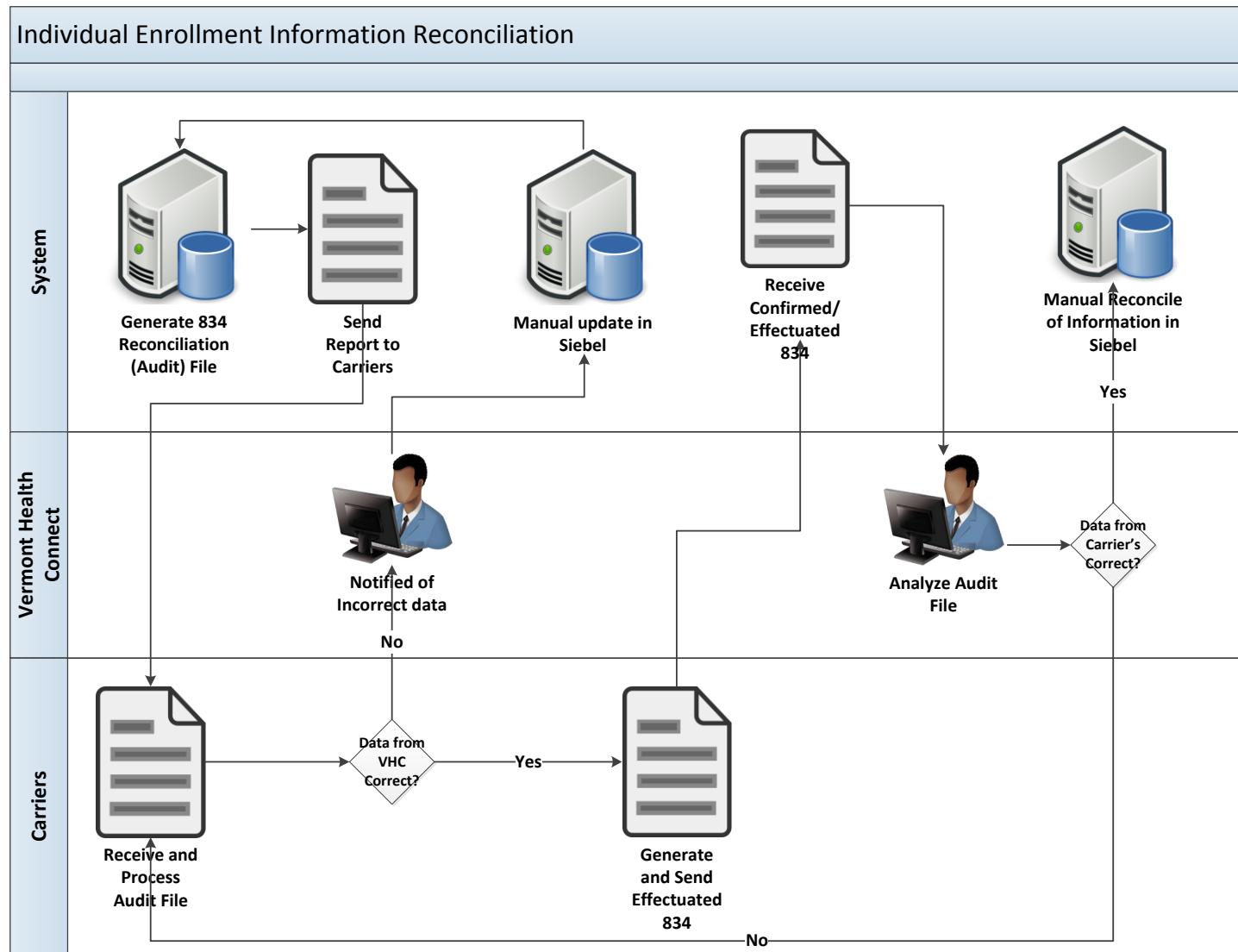
Individual Enrollment Information Reconciliation Process

Business Process Diagram

Vermont Health Connect (VHC) and the Carriers must reconcile their enrollment information in order to ensure correct recordkeeping. The reconciliation process will be performed every Friday, beginning on October 1, 2013 and ending on December 31, 2013. An 834 reconciliation (audit) file will be generated and sent to the Carriers by the VHC. Starting 2014, this will be a monthly process and an audit file will be sent on the 20th of each month. The Carriers will then create a file of confirmed/effectuated 834 records and send the file with 834 confirmation messages or error messages back to the VHC within one business day. The VHC reconciliation analysis will take the next 3 business days. The following will occur based on who is the initiator:

- The Carrier's data is determined to be incorrect and needs to be updated: the VHC reconciliation customer service group initiates an 834 transaction to Carriers.
- The VHC's data is determined to be incorrect and needs to be updated: the Carrier will notify VHC and changes will be made manually in Siebel. No 834's are sent.
- If it's unknown whether the VHC or Carrier's data is correct: the reconciliation customer service groups, from the VHC and the Carriers, will contact each other to resolve issue.

This process will ensure that all information contained in the Carrier and VHC systems is consistent.

Exhibit 96: Individual Enrollment Information Reconciliation Business Process Flow


Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 97: Individual Enrollment Information Reconciliation Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EN-037	Automatically identify and process issuer discrepancies and payment information	Validated	See Business Flow	
EN-038	Generate report of periodic issuer reconciliation to CMS	Moved to Reporting	See Business Flow	

Key Assumptions and Considerations

Assumptions

- All information that is found to be incorrect will be reconciled between the Carriers and VHC.
- VHC will be the System of Record (SOR) and information contained in VHC reports will be the primary information.

Functional Considerations

The following functional items considered:

Not applicable

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Siebel CRM
- Interfaces with Carriers

New Testing considerations

Not applicable.

Individual Enrollment Information Reconciliation Design Details

Interfaces and Data Elements

- The VHC will have to send reconciliation reports to the Carriers through an interface.
- Internal interfaces between OneGate and Siebel will be needed for information processing, storage, and communications.

Data

Not applicable.

Reports and Notices Generated

- One report will analyze discrepancies in member counts.
- Another report will analyze discrepancies in data elements.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Weekly file transfer of audit file generated and transmitted every Friday after 5pm, from October 1st 2013 to December 31st 2013.
- Monthly reconciliation files will be generated and transmitted on the 20th of each month, after 5pm, beginning in January 2014.
- The comparison of the enrollment audit information will be manual.
- If the Carrier's data is determined to be incorrect and needs to be updated: the VHC reconciliation customer service group will initiate an 834 transaction to the Carrier.
- If the VHC's data is determined to be incorrect and needs to be updated: the Carrier will notify VHC and the change will be made manually in Siebel. No 834's will be sent.
- If it's unknown whether the VHC or Carrier's data is correct: the reconciliation customer service groups from the VHC and Carriers will contact each other to resolve the issue.

References

The D-14 Functional Requirements includes requirements listed in the Requirements Addressed Exhibit.

21.4 Plan Management

The Plan Management Module enables Carriers to supply information necessary for VHC to make plans available for employers, employees, and individuals to shop for QHPs. The VHC Plan Management approach leverages and integrates plan management and templates that VHC anticipates will be available through the National Association of Insurance Commissioners' (NAIC) System for Electronic Rate and Form Filing (SERFF). There are several advantages to this approach including the following:

- Provides standard formats and templates for Carriers to complete and load
- Provides a means by which the Department of Financial Regulation (DFR) staff can perform their review and approval process
- Takes advantage of the same process Carriers and DFR use today to submit, review, and approve plans
- Automates processes to reduce the overall plan management processing time frame

21.4.1 Plan Management FSD

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Plan Management Process

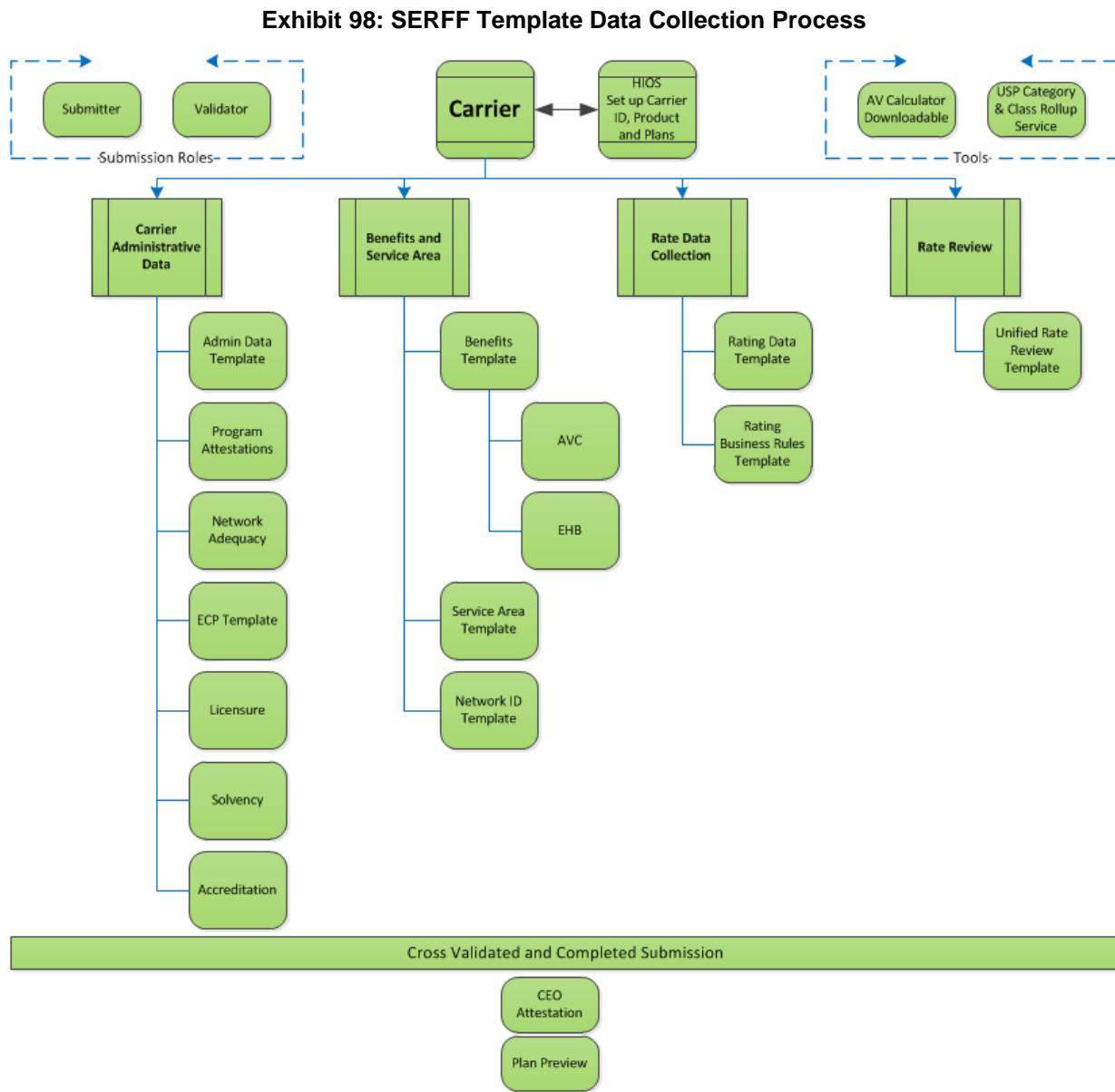
Business Process Diagram

Per the State of Vermont Data and Information Manager who is currently responsible for interaction with SERFF, the following applies for Plan Management for VHC: The Plan Management process flow begins with the response to an annual Request for Proposals (RFP) from Carriers licensed to sell health insurance in Vermont. The initial RFP response will be submitted to SERFF as part of a traditional form filing. The Department of Financial Regulation (DFR) reviews subsequent rate and binder filings and determines which plans should be certified and thus eligible to offer health insurance on Vermont Health Connect. QHPs (medical and dental) will be certified in SERFF and then loaded into Vermont Health Connect.

The Center for Consumer Information and Insurance Oversight (CCIIO) developed standard templates to collect QHP data, which will be collected through SERFF's binder filings. The CCIIO templates are divided into four main data collection areas:

- Carrier Administrative Data
- Benefits and Service Area
- Rate Data Collection
- Rate Review

Each of these data collection areas includes templates for data entry, document submission, and calculation. The following exhibit provides a high-level overview of template data collection process via SERFF:



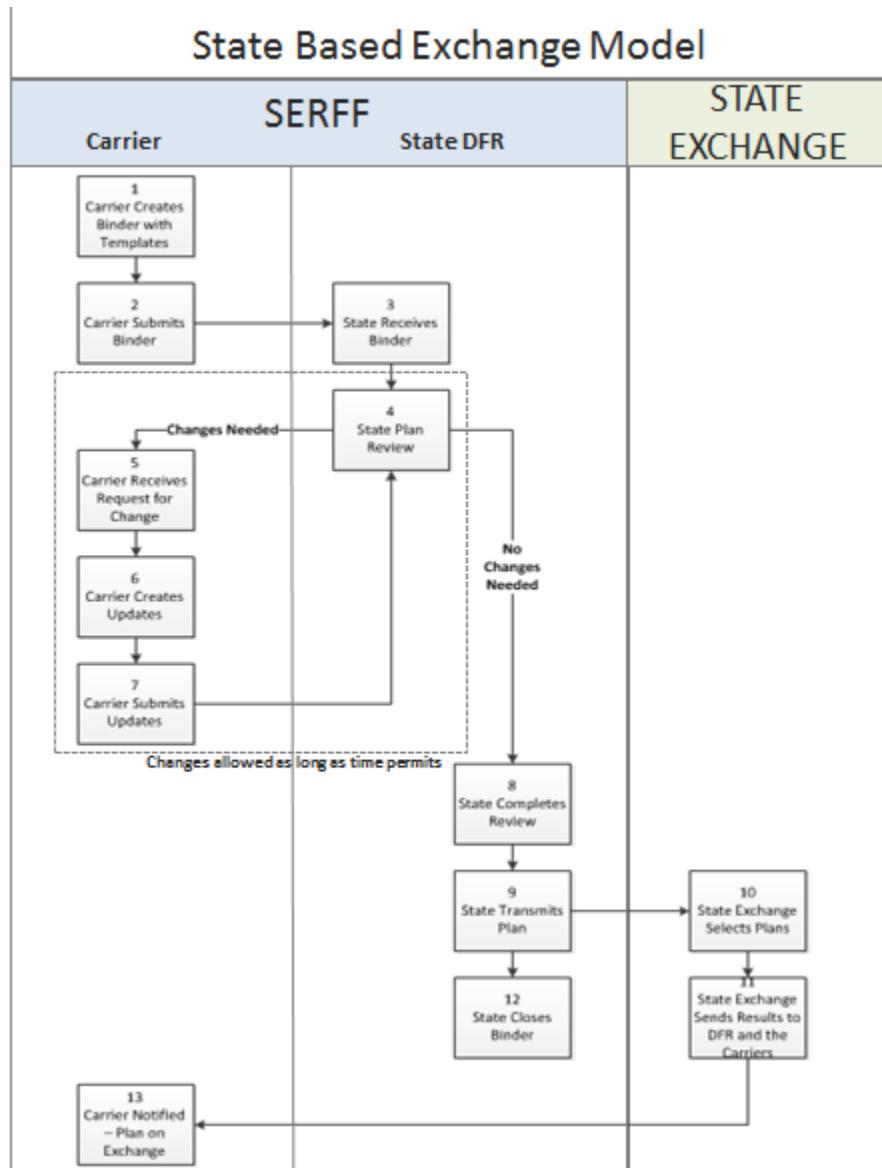
Under the State Based Exchange model, these templates are then transmitted to the federal Department of Health and Human Service (HHS) for cross validation, calculations, and data collection. After DFR certifies eligible plans and rates are approved, and the upload is retuned from SERFF, the Department of Vermont Health Access (DVHA) will review certified plans and select which will be offered on Vermont Health Connect. A data extract of final rate and benefit data for selected QHPs is transmitted from SERFF to the Federal Data Hub. DFR will utilize the SERFF system for final review and certification.

Once certified by DFR, QHP data will be loaded by an authorized State of Vermont Staff member into the Vermont Health Connect Siebel system through manual trigger in SERFF. QHPs that are selected for consumer shopping on Vermont Health Connect will be identified in the Siebel system so that they may be published.

Some information of Medicaid Managed Care Organization (MCO) plans will be manually entered into the Vermont Health Connect Plan Management module so they are available for the shopping module.

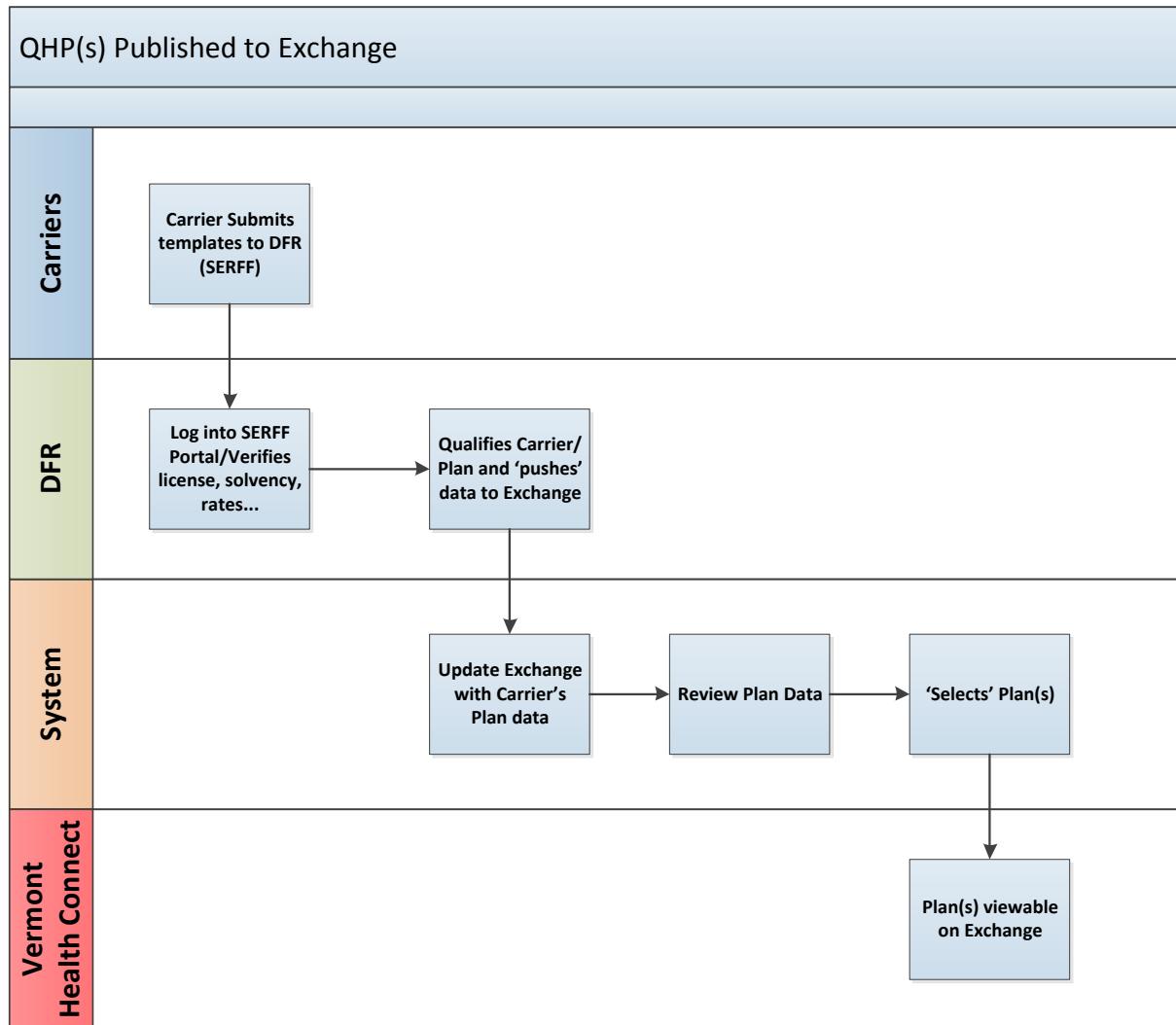
These process activities are represented in the following exhibit. The business flows represent the interaction between SERFF and VHC.

Exhibit 99: Business Process Diagram for SERFF and Vermont Health Connect



The following exhibit demonstrates the business process flow for how QHPs get published to the Exchange.

Exhibit 100: QHP(s) Published to Exchange Business Process Flow



Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 101: Plan Management Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-001	Provide a business rules engine that can support Exchange, State and federal Plan Management rules	Validated	OneGate / Siebel uses OPA for business rules	
PM-002	Provide a business rules engine that allows trained authorized business users to configure Exchange rules	Validated	OneGate / Siebel uses OPA for business rules	
PM-003	Provide the ability define a begin and end date for a plan enrollment period	Validated	Within Siebel an authorized user will be able to define a begin and end date for plan enrollment	
PM-004	Allow for multiple enrollment periods during a calendar year.	Validated	A qualified change of circumstance will allow for a special enrollment period	
PM-005	Provide the ability open a special enrollment period to enable enrolling a plan outside the defined enrollment period.	Validated	A qualified change of circumstance will allow for a special enrollment period	
PM-013	Provide the ability to establish and/or verify the existence of an Issuer ID	Validated	Carrier (Issuer) ID will be stored in the Exchange for certified Carriers	
PM-045	Provide the ability to accommodate time-base criteria to support a defined timeframe for which the criteria is valid	Validated	Will accommodate; for example, Plan(s) will be 'active' during a begin and end date and not before or after	
PM-046	Store historical criteria which is no longer in active use, or has expired for reference	Validated	System will store all data for historical use	
PM-050	Accommodate variations in criteria by Market (individual, small group, large group).	Validated	Vermont has a merged market for small group and individual where variations are not applicable, but system has capability to define variations if needed	
PM-059	Provide the ability to receive and process Rate and Benefit Data for each product plan offered on the Exchange	Validated	System will receive Rate and Benefit Data via SERFF interface.	
PM-099	Update CMS with certified plan information consistent with the initial certification process	Validated	Data feed via Interface	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-037	Provide ability to store Issuer information provided by Insurance Division into the Exchange system. Data can include: - Certification information - Plan approval - Market Analysis results - Audits - Rate Reviews - Quarterly Performance Data - Suspensions or actions (if exist)	Deferred	Manual process	
PM-021	Provide multiple levels of categorization of plans to identify different plan 'types' and allow for multiple types of plans (e.g. Line of Business, PPO vs. HMO, Pre-Paid 7A/7B, etc.)	Validated	Plans loaded into Siebel via SERFF interface will store required data to be displayed on the Portal	
PM-022	Provide ability to identify those plans that contain pediatric essential dental benefits	Validated	If a plan loaded into Siebel via SERFF interface has pediatric essential dental benefits as a benefit of the health plan it will be stored and displayed on the portal.	
PM-023	Provide ability to identify those plans that contain pediatric essential vision benefit	Validated	If a plan loaded into Siebel via SERFF interface has pediatric essential vision benefits as a benefit of the health plan it will be stored and displayed on the portal.	
PM-026	Store information about each issuer and product plan offered within the Exchange, as required to support plan analysis. Examples of product plan data includes: - Benefits structure/cost sharing requirements - Quality measures and rating data (potentially through existing accreditation entities reporting mechanisms) - Rates - Co-pay and cost sharing information	Validated	All plan data required for analysis and is available via SERFF will be stored, as well as any necessary data to be entered manually into Siebel CRM	
PM-083	Display the metal rating of a plan (platinum, gold, silver, bronze)	Validated	Metal ratings if defined by the Carrier will be displayed via the Portal	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-085	Provide the ability for plan information to be 'published' to the public exchange view when approval for plan is finalized	Validated	When plans are designated as 'Selected' and 'Certified' in Siebel CRM, the plans will be viewable, i.e. published, in the Portal.	
PM-086	"Provide the ability to display plan information on the public exchange view, including, but not limited to data such as: - Plan title and description - Plan quality rating - Plan providers - Out of pocket limits - Annual deductible - Doctor Choice - Prescription Choice - Monthly Premium - Applicants Denied - Plan Details - Link to Issuer/Plan website - Medical loss ratio - Transparency in coverage - Summary in benefits and coverage - Levels of coverage - Availability of in-network and out-of-network providers"	Validated	Necessary plan data submitted via SERFF and 'pushed' to the exchange via interface will be displayed in the Portal	
PM-139	Allow Issuers to submit new/changed marketing and Enrollee communication materials	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-140	Receive electronic files of marketing materials from Issuers	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-141	Allow users to be able to classify marketing materials from Issuers	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-142	Store and track electronic files of marketing materials from Issuers	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-143	Allow Plan Management staff to view electronic files of marketing materials	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-144	Track review and approval activities related to review of marketing materials	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-145	Allow Marketing materials to be linked to appropriate plan/issuer records in the system.	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-146	Provide capability to categorize marketing materials according to a schema defined by the Exchange	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-147	Provide the ability to store links to websites that are references to marketing materials. The links must be able to be associated to appropriate Issuers/Plans.	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-149	Provide version control document management capabilities for submitted marketing materials in order to manage document submissions and revisions	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-150	Allow marketing material reviewers to create and send notifications to Issuers about requested revisions	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-151	"Record approval information about marketing materials, including: -Approver -Approve Date -Status"	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-152	Upon approval of marketing materials, generate notification to Issuer regarding approval	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-153	Upon approval of marketing materials, provide update to Issuer's QHP Account Information	Validated	The system will provide a link to the Carrier(s) website for Consumers to view marketing materials	
PM-154	Provide the ability for Issuers to submit Provider Network Information	Validated	The system will provide a link to the Carrier(s) website for Consumers to view that Carrier(s) provider network.	
PM-160	Upon authorized approval, the updated Provider Network for a plan or Issuer must be able to be published to the Exchange website for view by consumers.	Validated	The system will provide a link to the Carrier(s) website for Consumers to view that Carrier(s) provider network.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-163	"Provide ability for Insurance Issuer staff to view Provider information, update as needed and add additional data. It is anticipated that Issuers will have access to less Plan data fields than Exchange staff. Data may include: - Plan Contact Information - Call Center Information - Addresses - Website Addresses - Management/Key Personnel/Ownership Changes - Plan Name Changes - Banking Information"	Validated	The system will provide a link to the Carrier(s) website for Consumers to view that Carrier(s) provider network.	
PM-167	Store and track historical Issuer administrative data	Validated	System will store and track Carrier Administrative data within the Siebel CRM	
PM-173	The Insurance Division must be able to electronically communicate a plan enrollment change to the Exchange system. Data required will include: - Enrollment availability status - Change justification - Effective dates - Status indicating if new dependent enrollee's are still allowed	Validated	Manual process until Insurance Division has capability to transmit data via interface	
PM-174	Provide the ability to record the request for change in product availability including: - Issuer Identifier - Plan Identifier - Plan Changes Effective Date - Changed Plan Information: - Enrollment close status - Enrollment open status - Justification information - Requestor information - Status of change request	Validated		
PM-176	Provide the Exchange Plan Account Manager with the ability to review enrollment change request data and electronically approve or disapprove the enrollment notification or request.	Validated		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-180	Upon approval of the enrollment change request, send an update transaction to the appropriate CMS system for plan management and fiscal management functions indicating the plan enrollment status change and other information required by CMS	Validated	Data feed via interface	
PM-186	Provide the ability for issuer and product information to be "published" to the public exchange view when approval is finalized.	Validated	A link will be provided in the Plan Comparison screen for each plan for the Consumer to view the Summary of Benefits, which will be stored in Oracle WebCenter	
PM-188	The system shall periodically submit data to the appropriate CMS system for plan management and fiscal management functions, as required by federal regulation.	Validated	Data feed via interface	
PM-201	Upon rate increase approval, update certification agreement data and relevant rate and benefit data, effective dates.	Validated	Rate and Benefit data will be updated via the Siebel CRM	
PM-203	Provide the ability to receive and process second lowest cost silver plan ratings from the appropriate CMS system for plan management and fiscal management functions. - Issuer Identifier - Plan Identifier - Rate Data - Rating Factors	Validated	Via interface with Federal Hub	
PM-204	Allow the authorized user to publish finalized rates and benefits data to the public facing Exchange.	Validated	Via the Siebel CRM	
PM-082	Determine the quality rating in accordance with CMS plan quality rating methodology.	Deferred	Quality rating deferred until 2015	
PM-084	Provide query of plans by issuer with calculated rating for other attributes to be determined by the Exchange.	Deferred		
PM-102	Provide the ability to define performance monitoring periods (i.e. quarterly, monthly etc.)	Deferred	See Section 10 Reporting and Analytics	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-103	Accept Issuer and plan performance data electronically from Issuers and the Insurance Division in support of periodic monitoring activities such as: - HEDIS ratings - Consumer perception ratings (CAHPS) - Complaints - Patient information programs - Claims payment data - Disenrollment data - Denied claims - Issuer ID - Compliant data/summaries - Sanction data (if any) - Solvency Status - Network Adequacy	Deferred	To be defined at a later time.	
PM-105	Accept Issuer and Plan data electronically from CMS in support of periodic monitoring activities such as: - Issuer ID - Plan ID - Complaint data/summaries - Other data to be determined by CMS	Deferred	Via interface with Federal Hub	
PM-109	Allow recording results of compliance analysis, and the status of an issuer/plan meeting a variety compliance requirements such as: - Benefits design standards - validation/tracking data - Essential benefits - Cost sharing limits - Coverage levels - Insurance Division certification status - User fee compliance - Risk adjustment participation compliance - Plan offering compliance - Non-discrimination compliance - Transparency requirements	Deferred	To be defined at a later time	
PM-110	Indicate the status of an Issuer/Plan compliance determination	Deferred	To be defined at a later time	
PM-111	Allow for preliminary and final compliance determinations	Deferred	To be defined at a later time	
PM-112	Retain historical compliance tracking information	Deferred	To be defined at a later time	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-115	Calculate a quality rating for each plan according to a methodology determined by the Exchange.	Deferred	Quality rating deferred until 2015	
PM-116	Retain historical plan quality ratings	Deferred	Via the Siebel CRM	
PM-117	Display the most current quality rating for each plan on the consumer website.	Deferred	When Quality ratings are determined for 2015 the system will store them for each plan in Siebel CRM and displayed in the portal	
PM-119	The system must accept electronic Issuer complaint data in a secure manner, from the Insurance Division on a monthly basis.	Deferred	To be defined at a later time	
PM-148	Track marketing material revision requests and the revision process, including tracking data about revision requests such as - Issuer Identifier - Plan Identifier - Marketing Material content - Material review process/tracking information - Revision number	Deferred	To be defined at a later time	
PM-168	Provide ability for Issuers to electronically submit transparency and quality data such as: - Issuer Identifier - Transparency/quality Information: - Payment policies and practices - Financial disclosures - Enrollment/disenrollment data - Claims denials - Rating practices - Quality rating data	Deferred	To be defined at a later time	
PM-169	Provide the ability to receive electronic documents of transparency or quality information from Issuers	Deferred	To be defined at a later time	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-171	The system must be able to track the review steps and progress of transparency and quality data analysis including: - When information was received - Analytical steps - Process status	Deferred	To be defined at a later time	
PM-087	Provide the ability for plan information to be easily removed from the public exchange view if approval status of the plan changes	Validated	Plans unmarked 'Certified' and 'Selected' will be removed from the public exchange view	
PM-187	Provide the ability for issuer and product information to be easily removed from the public exchange view if approval status changes	Validated	All product information will be viewable by a link within the plan. If the Carrier is removed from the exchange, all plans will be removed, therefore all product information will not be viewable.	
PM-074	Produce electronic notification to CMS when an Issuer/plan is not renewed or is decertified from the Exchange	Deferred	Data feed via interface	

Key Assumptions and Considerations

Assumptions

- All Carrier(s) have been certified to operate in the State of Vermont.
- All Plans have been certified by DFR before being 'pushed' from SERFF to the Exchange.
- Each QHP has been 'pushed' to the exchange by an authorized SOV Staff member within SERFF.

Functional Considerations

The following functional items considered:

- An authorized SOV Staff member will access Siebel and select each QHP to be 'published' to the public facing exchange.
- Some QHP's may need to be manually updated after receipt from SERFF.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Siebel CRM
- Federal Hub Interface
- SERFF Interface

New Testing considerations

The following testing items must be considered:

The tester must have capability to log onto SERFF to ‘push’ plan data to the exchange.

Plan Management Design Details

The Plan Management solution for Vermont varies a great deal from the RTM inherited from Hawaii. As a result, there is more design that is required for Plan Management than most other areas of the VHC solution. The following exhibit outlines the topic areas and core functionality the State of Vermont has identified as required for Plan Management. These topics will be discussed in detail design sessions during the week of June 3rd.

Exhibit 102: Plan Management Design Updates

Core Functionality Needed for VT Plan Management	Status	Needs to be done
VT Subsidy and CSR (subsidy specific to VT – law passed in May 2013)	Level of Effort (LOE) in process	Customization – New Module to be developed by Exeter.
Quality Rating (none in VT at this time)	Will remain on screen and show a value of 0 or NA (preferred)	
Provider Preference	LOE in process	Remove filter – we will remove functionality, add new NPI # or alternatively use a third party product for the directory (being researched)
Plan Details (Plan Comparison Screen)	Product Team evaluating options	Values in Current lines can be configurable. Additional lines being reviewed by product team.
Dental for Individuals	Exists in product – see User Guide 3.2.1	CGI to mock up screen(s) for review during design sessions June 3 and 4
Dental for Employers and Employees	LOE in process CGI mocking up screens: 2 for Employee (Plan Select and Comparison) and 2 for Employer (Plan Select and Comparison)	CGI to mock up screen(s) for review during design sessions June 3 and 4
Employer Carrier Choice/Full Choice	Full Choice – LOE in process	Modify current screen
Four Tier Rates	LOE in process	Exeter to provide LOE for SOV to review
Glossary Configuration	Available as soon as Development environment is up, or sooner	Will provide to SOV to start review/edits

Interfaces and Data Elements

- SERFF
- Federal Data Hub

Data

Not applicable.

Reports and Notices Generated

No Notices will be generated for Plan management

User Interface (Existing Screen)

Not applicable.

Business Rules

Only authorized users will be able to update plan data and Certify>Select plans to be ‘published’ to the public viewing exchange as well as remove plans from the public viewing exchange.

References

The *D-14 Functional Requirements Document* which includes requirements listed in Requirements Addressed.

21.5 Small Business

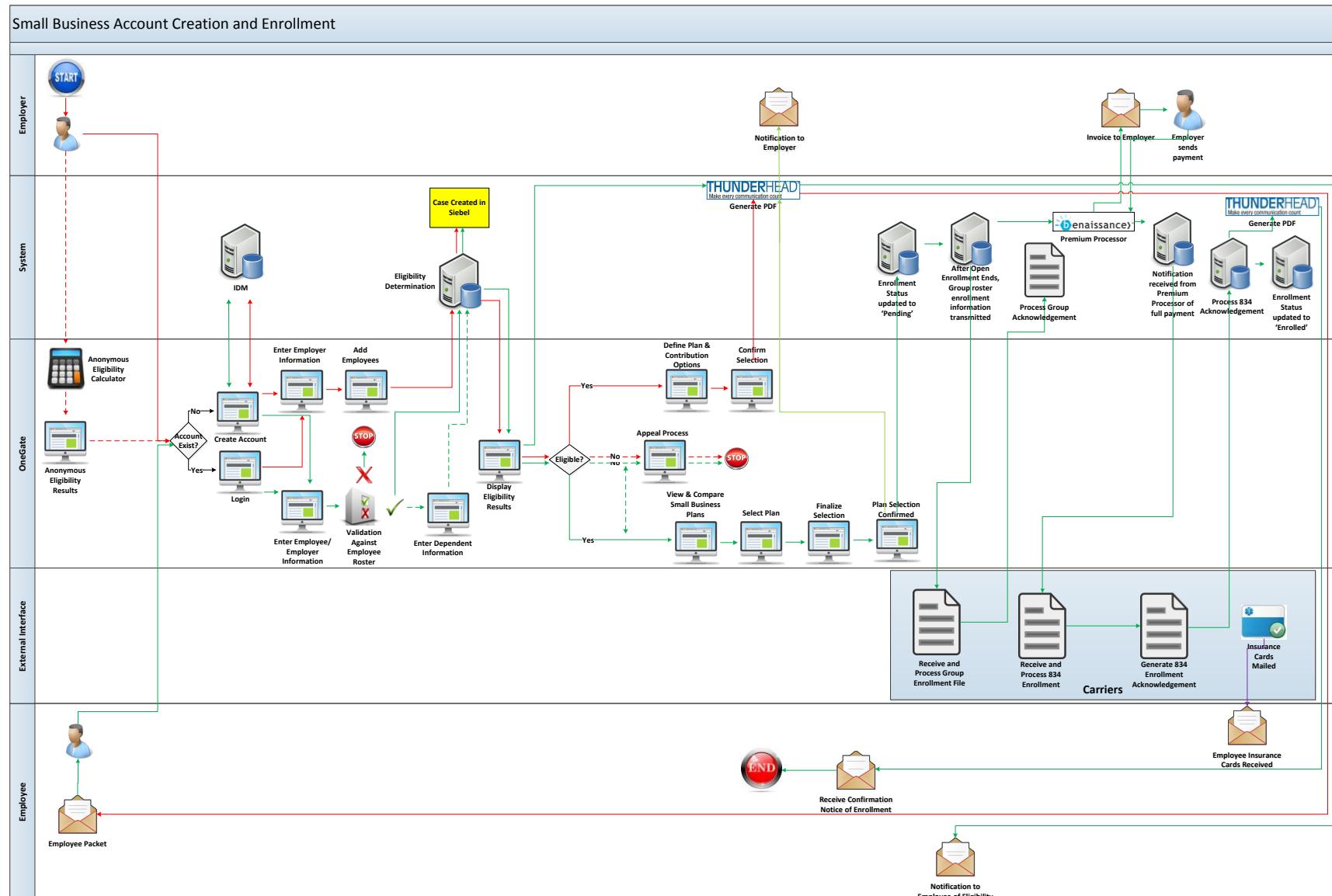
21.5.1 Small Business Application and Enrollment FSD

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Small Business Application and Enrollment Process***Business Process Diagram***

The Small Business employer can begin the process by anonymous browsing to determine his tax credit estimation. He can continue to review the plans. He can stop there or continue on to account creation. He can skip the anonymous browsing step and begin with creating an account. The employers will then fill out the application, upload the employee roster, and select a carrier choice model for his employees. Once a Small Business employer has finished selecting plans to offer to his/her employees, the employees will receive a packet inviting them to enroll in the plans being offered by their employer. Vermont Health Connect uses the information entered by the employee to confirm the employee's eligibility by validating the employee with the employer-uploaded employee roster. The employee can then select from the plans being offered by their employer, using the same plan selection screen available to Individual users of Vermont Health Connect.

Exhibit 103: Small Business Application and Enrollment Business Process Flow


Requirements Addressed

The following exhibit includes requirements for which functionality is being designed or configured, requirements that are covered in the Business Process Diagram(s) and have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, and the status of the requirement. The status of the requirement is the current status at the time of submission of this document.

Exhibit 104: Small Business Application and Enrollment Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-7	Based on carrier and plan information gathered, display plan cost and availability based on initial questionnaire completed by the employer.	Validated	When employer selects Carrier choice model, the plans will be displayed providing the employer details of cost.	
SH-11	Provide capability to display a detailed and cost comparison of all available health plans based on information about employees and employee dependents listed in the employee roster.	Validated	Employers will be able to compare plans via the Plan Comparison screen.	
SH-15	Once a plan, plans or a tier is selected, direct an employer to instructions on payment remittance for monthly premiums and coordinating the benefit election process with employees.	Validated	Employer will be invoiced based on billing timeline which will provide payment instructions	
SH-22	During the Application Process, prompt the Employer to enter the exact business name associated with the EIN.	Validated	The employer is asked to enter Business Name and EIN. The business name will be used by employees during the application to identify the employee as an employee for the employer.	
SH-23	Provide the capability to differentiate / track full-time employees versus part-time/hourly employees in the employee roster.	Met		
SH-25	Conduct validation of mailing addresses provided in applications (using external Postal Address validation service)	Deferred	Self-attestation	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-26	For employers who do not have an EIN, allow the application process to proceed (e.g. businesses in the process of obtaining an EIN, etc.) Per the 30-day validation process, allow for the suspension of eligibility if EIN remains un-verified.	Validated		AI for Nicole and Eric to determine during week of 5/28/13 if this requirement should be deleted and keep it as a mandatory OneGate field. (Do not suggest allowing for a temp number) May require language added to OneGate to explain consequences for not having one or providing an EIN. Additional language is a customization.
SH-40	Provide capability to generate a request to the VT DOL to verify an employer's size.	Validated	Self-attestation for the first year	
SH-41	Provide the capability to initiate a manual verification process when additional verification of employer size is required. (e.g. using EIN, HBI, actual payroll, Master Business License Application, income tax documents, etc.)	Validated		SOV Waiting for demo of 3.2.2 release
SH-46	When additional verification is required, provide on-screen notification to employer to supply additional verifications through the Exchange.	Deferred	Employers will be using self-attestation for the first year	
SH-47	Update user / employer account status based on updated results for employer size, business address, coverage and number of full time employees	Validated	Employer will self-attest to employer size, coverage and number of full-time employees for the first year.	
SH-48	Provide capability to generate a request to the Information Source To Be Determined (TBD) to verify Business Address or Worksite.	Deferred	Self-attestation for the first year.	
SH-49	Provide the capability to initiate a manual verification process when additional verification of Business Address or Worksite is required.	Deferred	Self-attestation for the first year.	
SH-50	Display the result of the verification provided by Information Source TBD; provide means for an employer to dispute, call into question or appeal the validity of data from authoritative sources	Validated	Self-attestation for the first year.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-51	Provide capability to electronically store documents submitted for Business Address or Worksite verification.	Validated	WebCenter is the tool being used for Document Management	
SH-52	Track status of verification separately for employer size, business address, coverage and number of full time employees based on the following: - Verified - Not verified - Pending Review	Validated	Employer is self-attesting for the first year. No interface between an authoritative source will be included during year one.	
SH-57	Provide capability to allow employer participation upon initial application, but to terminate participation if original eligibility information is in question and is not substantiated within thirty days.	Validated	Self-Attestation for the first year	
SH-64	After plan selection by the employees and the employer has re-evaluated their plan costs and submitted payment, initiate the plan enrollment process / transaction to applicable carriers.	Validated	One the employer submits full payment of the premium, and 834 transaction will be sent to applicable carriers to initiate the enrollment process	
SH-66	Once plan costs are finalized along with the Employee Census, provide onscreen and written notification to the employer, with summary and detailed cost information.	Validated	Written notification will be handled by the Premium Processor and sent to the employer with summary and detailed cost information. On-screen notification will be provided to the employer via the employer's My Account.	
SH-72	Allow employer contribution to be based on multiple employee choice models, including choice within a tier (employee vs. family), choice of carrier or entire exchange, or full employee choice	Validated		<ul style="list-style-type: none"> ▪ Full choice and carrier choice not a function of OneGate; Exeter LOE ▪ Employer Contribution is in an Exeter LOE ▪ VT 4-tier rating system not a function of OneGate and is in an Exeter LOE
SH-116	Provide the capability to capture, track, and disposition appeals in the Exchange (including status, assignments, and relevant case notes).	Validated	When an appeal is filed, the Siebel CRM will be able to capture, track and provide staff to document the disposition.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-117	Provide the capability to refer or route appeal requests to entities outside of the Exchange such as an Independent Review Organization or Issuers.	Validated	Manual process	
SH-119	Provide the capability to record the detailed results and supporting documentation that result from or support an appeals decision.	Validated	Capability through the Siebel CRM	
SH-142	Provide the capability to identify Employers (or Employer's representatives like Human Resources, Administrative staff, etc.) if the Employers or Representatives are completing applications on behalf of an employee. Also, provide the capability for employers to update election status on behalf of their employees (i.e. log or complete the waiver process) while requiring employee approval/recognition.	Validated	The employer will have to access the employee's own account based on permission of the employee or be an authorized Broker/Navigator to assist the employee. Afterwards, the employee will attest to the accuracy of the information before the application is processed.	
SH-145	Conduct a validation of SSN provided versus the name provided (i.e. validate against name on record with Social Security Administration database). Track any validations made.	Validated	Validations will be made between the employee and the Employer's employee roster.	
SH-150	Inform employees that may be eligible for subsidized coverage at a lower premium and allow for an individual eligibility determination.	Validated	Notice to inform employees. Employees can go on the Exchange as an Individual and fill out an application to receive an eligibility determination.	
SH-153	Provide additional language support in accordance with Exchange language support guidelines.	Validated	No language support guidelines for VT exchange.	
SH-155	Provide capability for employees to access in-depth online help during the application process.	Validated	OneGate provides blue "?" icons throughout the application to assist employees as well as a help function and a glossary of terms.	
SH-158	If an application is initiated by a Navigator, the Exchange shall have the capability for the employee to attest that the information provided by the Navigator is accurate.	Validated	The employee will attest to the information submitted by the Navigator/Broker prior to the application being considered complete.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-159	Provide the capability to identify Navigators (or Brokers, etc.) if they are completing applications on behalf of an employee.	Validated	The Navigator/Broker will identify which employee the application is being completed on behalf.	
SH-162	Conduct validation of mailing addresses provided in applications through attestation	Validated	Will be done through Self-Attestation. Provide employer with on-screen notification to self-attest to address.	
SH-163	Conduct a validation of SSN provided versus the employee name provided (i.e. validate against name on record with SSN database) and provide capability to validate SSN versus other criteria.	Validated		Duplicate of SH-145
SH-169	If consumers can be enrolled in Medicaid and Small Business simultaneously, a consumers' unique identifier shall indicate this dual enrollment for any consumers that are enrolled in both Medicaid and Small Business.	Validated	Indicator for dual enrollment	Meeting with SOV week of 5/28 to determine solution
SH-170	During the application process, user accounts shall allow for the inclusion of the following: - User unique identifier - User demographic information - Application status - Enrollment status	Validated	The User unique identifier will be defined by the System. The User will enter his/her own demographic information. The application status will be defined by OneGate, stored in Siebel, and update based on User's progress. Enrollment Status will be defined by OneGate based on submitted employee application, stored in Siebel, and updated by an 834 transaction of completed enrollment from the Carrier(s)	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-173	Allow employee to enter information about employee dependents, if employers are choosing to provide coverage to employees' dependents. Dependent information gathered will include, but is not limited to the following: <ul style="list-style-type: none"> - Name - Date of Birth - Address - Phone Number - Gender - Smoking Status - Indian Status 	Validated	Through the Dependent screen via the Portal, if the employer is offering coverage to dependents, the employee will be able to add his/her dependents.	
SH-176	As a default, only display health plans that have been selected by the employer, are certified by the Exchange, are open to additional enrollment, and are available in the employee's geographic area.	Met		
SH-177	Display projected actual plan cost (net premium) based on employer groups and applicable rating factors (consumers covered, age, geography, quality ratings, etc.) to the employee during the application process.	Met		
SH-178	Provide capability to display a detailed comparison of available employer-selected health plans based on employee preferences	Validated	When employer chooses carrier choice or full-choice, the employee will be able to compare plans side by side based on preferences defined by the employee.	
SH-180	Provide capability to view and select plan(s) for employee dependents, if covered by employer	Validated	If the employer is allowing for dependent coverage, the employee will be able to select appropriate plans	
SH-183	Provide information and provide capability to allow employees determine if their premium costs are such that the costs make the employee eligible for purchasing insurance through the individual market or allow the employee to be exempt from the individual mandate, due to federal law. If either scenario is likely, invite employee to explore these options further at the Individual Exchange.	Validated	Through the 'household coverage information' screen via the Portal the employee will be displayed information to assist in determining if the plan is unaffordable.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-184	Allow employees to have a choice of Exchange's competing plans, based on employer selections and (given the employer contribution) see what their contribution requirement would be for each choice	Validated	Employees will be displayed the employer contribution amount and the premium amount of the plan which will calculate the employees contribution and display it.	
SH-185	Provide capability for an employee to select QHP(s) and initiate the enrollment process.	Validated	Employees will be able to select an QHP which will add the employee to the employer's employee list designated as an employee who has selected a QHP. Once employer pays full premium, the enrollment process for the employee(s) will be initiated.	
SH-186	Update an employee's account to reflect plan selection and the effective projected plan-year.	Validated	Once the employee has finished with his/her application (including plan selection) the employee can view selected plan and plan-year in the My Account section of his/her account via the Portal.	
SH-187	After plan selection, initiate the financial transactions required by employers to ensure plan enrollment process / transaction to applicable carriers.	Validated	Once the employer is invoiced for the premium, and is paid in full, an 834 enrollment transaction will be sent to the Carriers to enroll the applicable employees	
SH-188	After acknowledgement of the receipt of the plan selection, initiate the calculation of the final cost to employee	Validated	Employee will be displayed the employee cost based on plan selected and employer contribution on the 'Health Plan Enrollment Confirmation' screen	
SH-190	Provide a reminder that an employee receives tax relief when the employee purchases health insurance via their employer at through a pre-tax payroll deduction.	Validated	This reminder will be a part of the Notice that is sent to the employee after enrollment is completed by the Carrier(s)	
SH-191	Produce an automated and real-time, electronic notification of plan selection.	Validated	Employee will receive an onscreen notification of plan selection via the Portal's 'Plan Enrollment Information' screen.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-193	Upon employee's QHP selection, notify the employer of it own and each employee's respective contribution amount in order to facilitate appropriate payroll deductions as needed	Validated	When the employer receives the initial invoice, this will assist the employer to determine applicable payroll deductions.	
SH-194	Prepare a communication to Issuer regarding employee enrollment in QHP	Validated	Interface (834 to Carrier)	
SH-195	Receive and process acknowledgement of employee enrollment from Issuer	Validated	Interface (999 from Carrier)	
SH-196	Provide notification of successful enrollment to employee	Validated	Notice	
SH-197	Provide notification to CMS regarding employee enrollment	Validated	Interface	
SH-229	Process notification to employer of coverage for employees. Also, communicate any next steps required by the employer.	Validated	Notice	

Key Assumptions and Considerations

Assumptions

Employer:

- Employers will use self-attestation and no validation will occur outside the system.
- An employer cannot proceed to plan selection until they have been determined to be eligible.

Employee:

- Self-Attestation for address verification.
- Only able to select Small Business plans for Small Business users.
- Employee can change their enrollment if Plan selection is available and will go through the same flow starting with View & Compare plans.
- Dependents covered by a Small Business plan must be on the same plan as the Employee.

Both:

Plans have been loaded into the Exchange, either manually or via SERFF interface.

Functional Considerations

The following functional items considered:

Employer:

- The business process pertaining to necessary notifications and communications is currently in its infancy.
- Waiting for OneGate demos to move some 'Validated' requirements to 'Met'.

- Functionality currently in an LOE with Exeter where incorporation of this functionality is pending resolution of that LOE:
 - ▶ Small Business Stand Alone Dental.
 - ▶ Employee Roster "Types".
 - ▶ Employer providing different contribution amounts to different employees.
 - ▶ Employer Estimator.

Employee:

- The business process pertaining to necessary notifications and communications is currently in its infancy.
- Waiting for OneGate demos to move some 'Validated' requirements to 'Met'.
- Small Business Stand Alone Dental is currently in a LOE with Exeter. Incorporation of this functionality into the application would affect the business process flow.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Oracle Identity Management Suite
- Siebel CRM
- Thunderhead NOW
- Premium Processor
- Interface with Carrier's

New Testing Considerations

The following testing items must be considered:

- Interfaces are operational with Carrier's.
- Premium Processor development to provide financial data and notices.
- Thunderhead Now incorporation with Solution to generate notices.

Small Business Application and Enrollment Design Details

Interfaces and Data Elements

- External Interface with Carriers (834s)
- Internal Interface with Premium Processor
 - ▶ After an employer's open enrollment period ends, the HBE transmits the group roster enrollment information to the premium processor.
 - ▶ After full payment of the employer's group premium has been received by the payment processor, notification will be sent from the payment processor to the HBE.

Data

Not applicable.

Reports and Notices Generated

Notices:

- SH-038: Provide the capability for the employer to generate a packet of critical information to distribute to the employee
- SH-196: Provide notification of successful enrollment to employee
- NO-55: Generate written and on-screen notification of the result of an employee's eligibility determination
- NO-64: Process notification notifying employer of coverage for employees. Also, communicate any next steps required by the employer

Reports:

Not applicable.

User Interface (Existing Screen)

Not applicable.

Business Rules

Not applicable.

References

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 105: Small Business Application and Enrollment Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

- OneGate Employer Portal Experience User Guide
- OneGate Employee Portal Experience User Guide
- OneGate Broker/Navigator Portal Experience User Guide

21.5.2 Small Business Change Reporting FSD

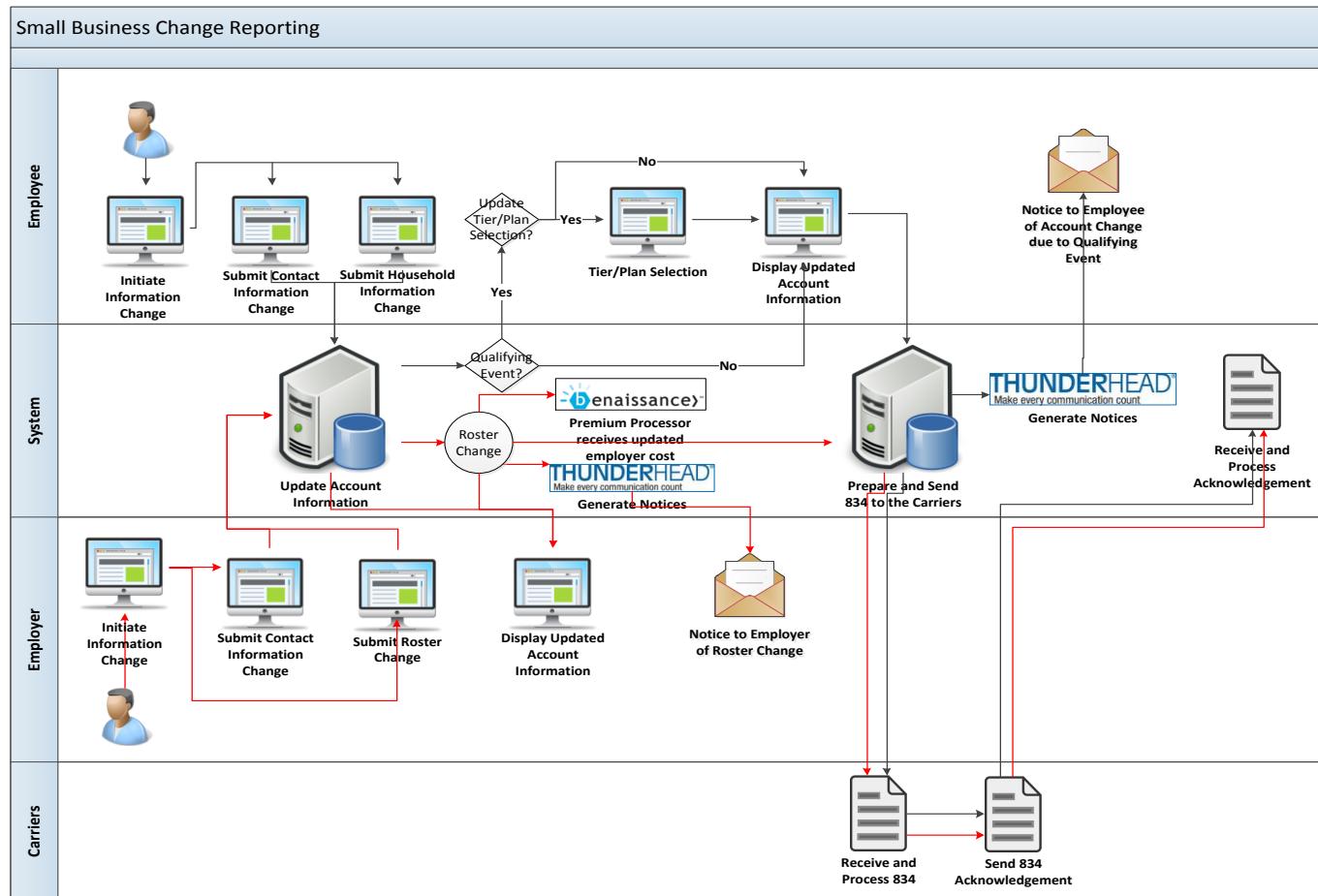
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Small Business Change Reporting Process

Business Process Diagram

After a Small Business Employer's or Employee's initial account setup and application receipt, which triggers a case in Siebel, the system will support the need to submit changes of information to Employer and Employee accounts. When a user submits a change to the Vermont Health Connect (VHC), the system must reevaluate employer or employee tax estimates and eligibility determinations, if necessary. Any account updates made must also be communicated to the Carriers via an 834 transaction.

Exhibit 106: Small Business Change Reporting Business Process Flow


Requirements Addressed

This exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 107: Requirements Addressed – Small Business Change Reporting

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-123	Provide capability for employers to submit changes to employee roster (add / remove employees) in between redeterminations / renewals.	Validated	Employers can make changes to the Employee Roster via My Account through an add/remove function or a new upload of the roster. Changes will be transmitted to the Carriers via an 834 transaction.	
SH-124	Provide the capability for employers to submit changes to the employee rosters, using multiple methods (i.e. submission of files, completion of data fields, etc.)	Validated	Employers can make changes to the Employee Roster using multiple methods such as online changes via My Account, or through mail/paper submission of the Employee Roster to a Broker/Navigator or directly to the Call Center.	
SH-125	Upon reporting changes in offers of coverage to all Full Time Employees, Employers must self-attest to continue participation in Small Business.	Validated	Via Self-Attestation on the portal.	
SH-126	Prepare and send communication to the employer regarding changes to the employer's employee roster.	Duplicate	Duplicate of NO-68	
SH-127	Provide capability for employers to check the status of employee QHP enrollment through the web portal.	Validated	Via Portal MyAccount	
SH-128	Provide capability to prepare and send information-only communication to the employer regarding potential changes to their Tax Credit Eligibility due to a change in the employee roster. Provide a link to IRS website for additional information regarding the Small Business Tax Credit.	Deferred	Notice Also a potential link to the IRS website - TBD	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-129	Provide the capability to recalculate the employer's total cost based on reported changes to the employee roster.	Met	The system will recalculate total cost based on employer roster changes. OneGate system rules (OPA) perform calculations to determine the employer's costs due to roster changes.	
SH-130	Provide the capability for employers to submit changes to the employer contact information.	Validated	Updates made in the portal via Users MyAccount.	
SH-132	Prepare and send communication to the employer regarding changes to the Employer contact information.	Deleted	Notice – SOV determined that this requirement is Deleted.	
SH-134	Provide the capability for employers to submit changes about the employer's principal business address or primary worksite location.	Validated	Updates made in the portal via Users MyAccount.	
SH-135	Provide the ability to capture a reported change in the employer's principal business location and satellite offices.	Validated	Changes to be captured in Siebel CRM and reflected in the Portal.	
SH-224	If reported changes do not qualify an employee for a special enrollment, store the eligibility / household changes for use during the next available open enrollment period.	Deferred	The system will store information for future use when the next open enrollment period is made available for use in eligibility determination and plan selection.	
SH-230	Provide the functionality to determine if an update to an employee account is categorized as a Qualifying Event.	Validated	Based on the change being made, qualifying event rules will be the basis for making this determination.	
SH-231	Provide capability for employees to submit changes to employee plan (add / remove dependents) in between redeterminations / renewals and due to qualifying events.	Validated	Updates made in the Portal via MyAccount.	
SH-232	Prepare and send monthly report to employer with the insurance bill, indicating changes to their employee enrollment list. Some of these changes will result from the employee's reporting of Qualifying Events.	Validated	This is a Report – will be added to Report Catalogue.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-233	Prepare and send communication to the employee regarding changes to the employee's account due to a Qualifying Event.	Duplicate	Duplicate of NO-71	
SH-234	Initiate enrollment or disenrollment process for employee or the employee's dependents, depending on the nature of the Qualifying Event.	Met	The Change of Circumstance will be entered into the system depending on the nature of the change. If it is a Qualifying Event an 834 Transaction will be sent to the Carrier through the Interface.	
SH-235	Provide the capability for employees to submit changes to the employee contact information.	Validated	Updates made in the Portal via MyAccount	
SH-236	Report employee contact information changes to the Issuer.	Validated	This change will be reported to the Carrier via an 834 transaction using the Interface. This may be a Qualifying Event if the contact information results in a move to another state (for example).	
SH-237	Prepare and send communication to the employee regarding changes to the Employee contact information.	Deleted	Duplicate of NO-69	

Key Assumptions and Considerations

Assumptions

- Employer size will only be verified via self-attestation. Any change to employer size will not trigger eligibility redetermination (per requirement SH-125).
- Change reporting only applies to current Exchange enrollees.

Functional Considerations

The following functional items considered:

The 834 transaction interface is clearly delineated to the Carriers

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Siebel CRM
- Thunderhead NOW
- Premium Processor

New Testing considerations

The following testing items must be considered:

Not applicable.

Small Business Change Reporting Design Details

Interfaces and Data Elements

- Internal interfaces between OneGate, Siebel, and Thunderhead NOW for information processing, storage, and communications.
- External interface with carriers via 834 transactions.

Data

Not applicable.

Reports and Notices Generated

- NO-68: Prepare and send communication to the employer regarding changes to the employer's employee roster.
- NO-71: Prepare and send communication to the employee regarding changes to the employees account due to a Qualifying Event.
- SH-232: Prepare and send monthly report to the employer with the insurance bill indicating changes to their employee enrollment list. Some of these changes will result from the employee's reporting of Qualifying Events.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Business Name and EIN cannot be changed by the Employer after they have been saved in the Employer application unless the Employer calls in to the call center.
- Changing the number of full-time employees will not result in an employer becoming ineligible after their initial eligibility determination.
Note: Except when total number of employees equals zero.
- Changes to the employee roster will recalculate the cost to the employer and provide the data to the Premium Processor to be reflected on the employer's next invoice.

References

The D-14 Functional Requirements Document which includes requirements listed in the Requirements Addressed Exhibit.

21.5.3 Small Business Disenrollment FSD

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Small Business Disenrollment Process

Business Process Diagram

The Small Business Disenrollment Business Process describes the system functionality that facilitates the disenrollment of employers and employees. The different types of disenrollment include employer and employee, voluntary and involuntary disenrollment.

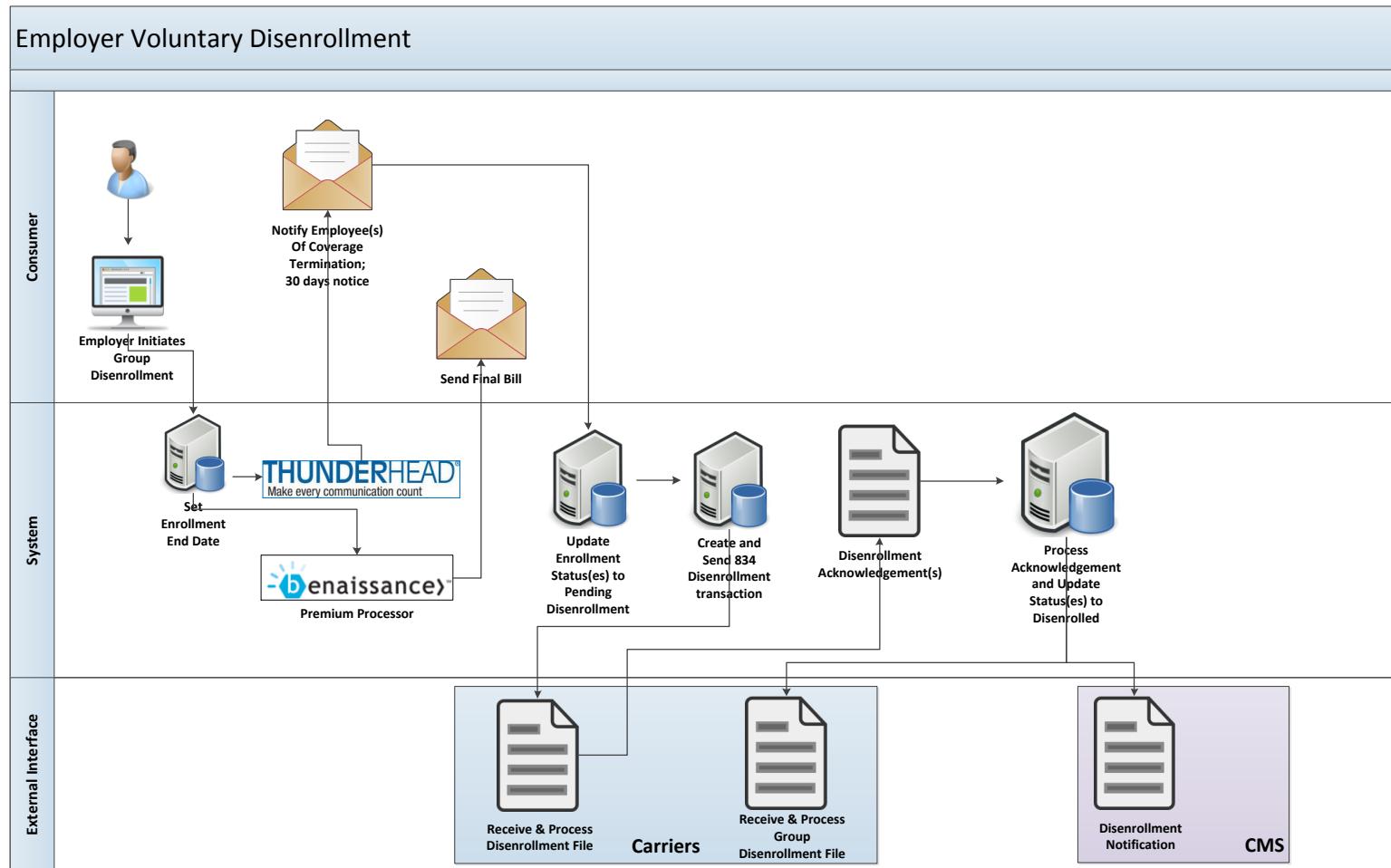
Exhibit 108: Employer Voluntary Disenrollment Business Process Flow


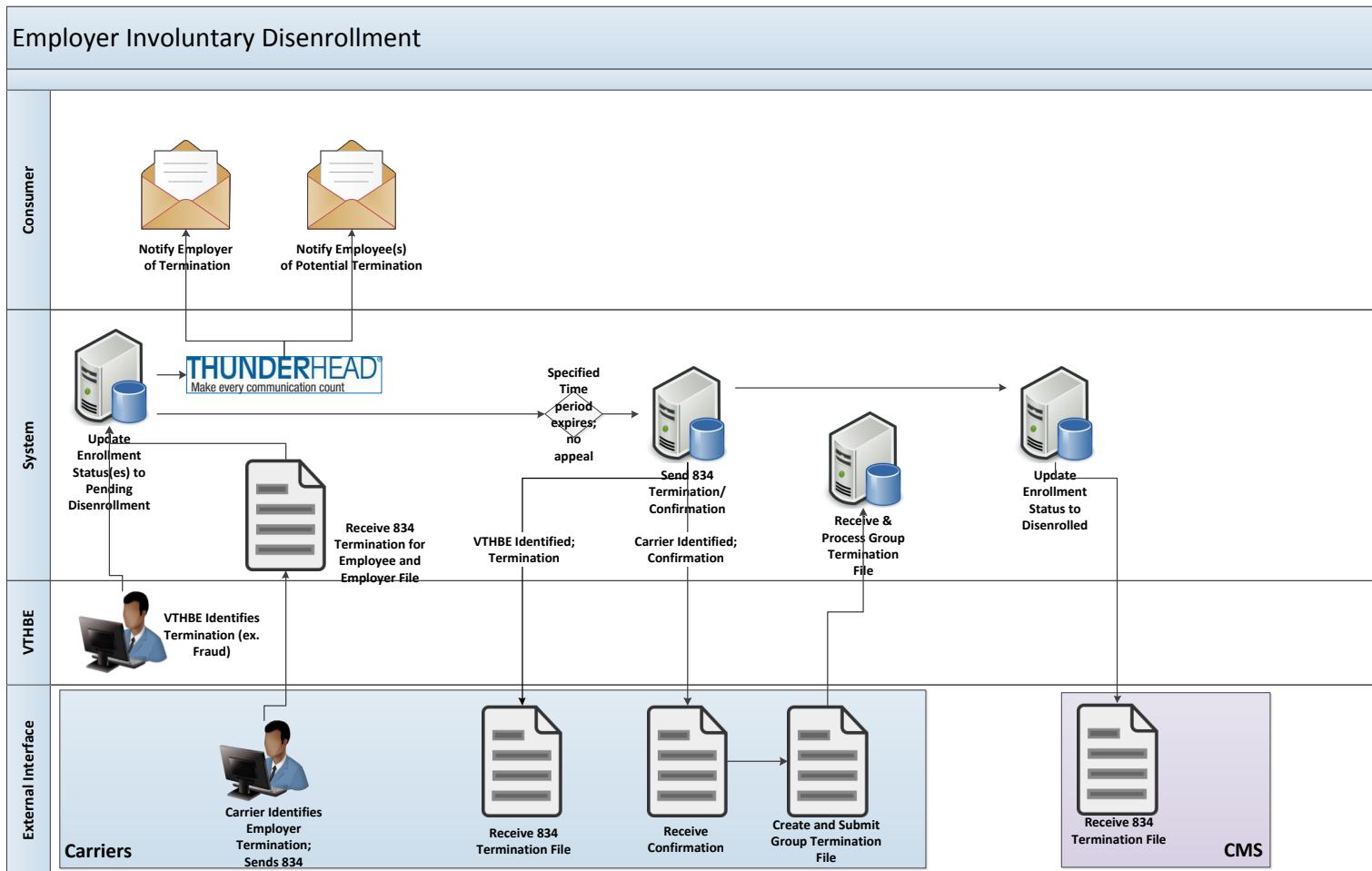
Exhibit 109: Employer Involuntary Disenrollment Business Process Flow


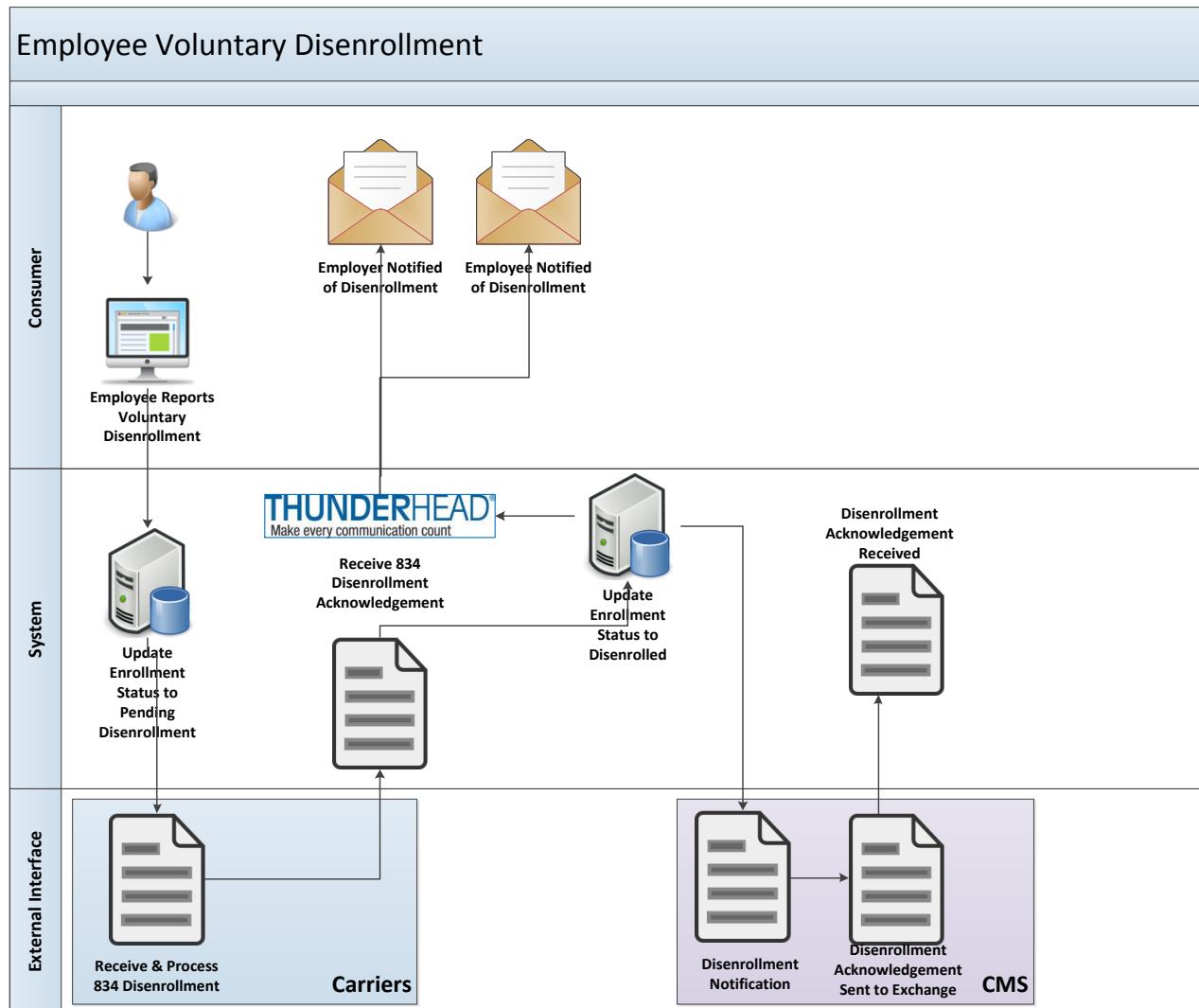
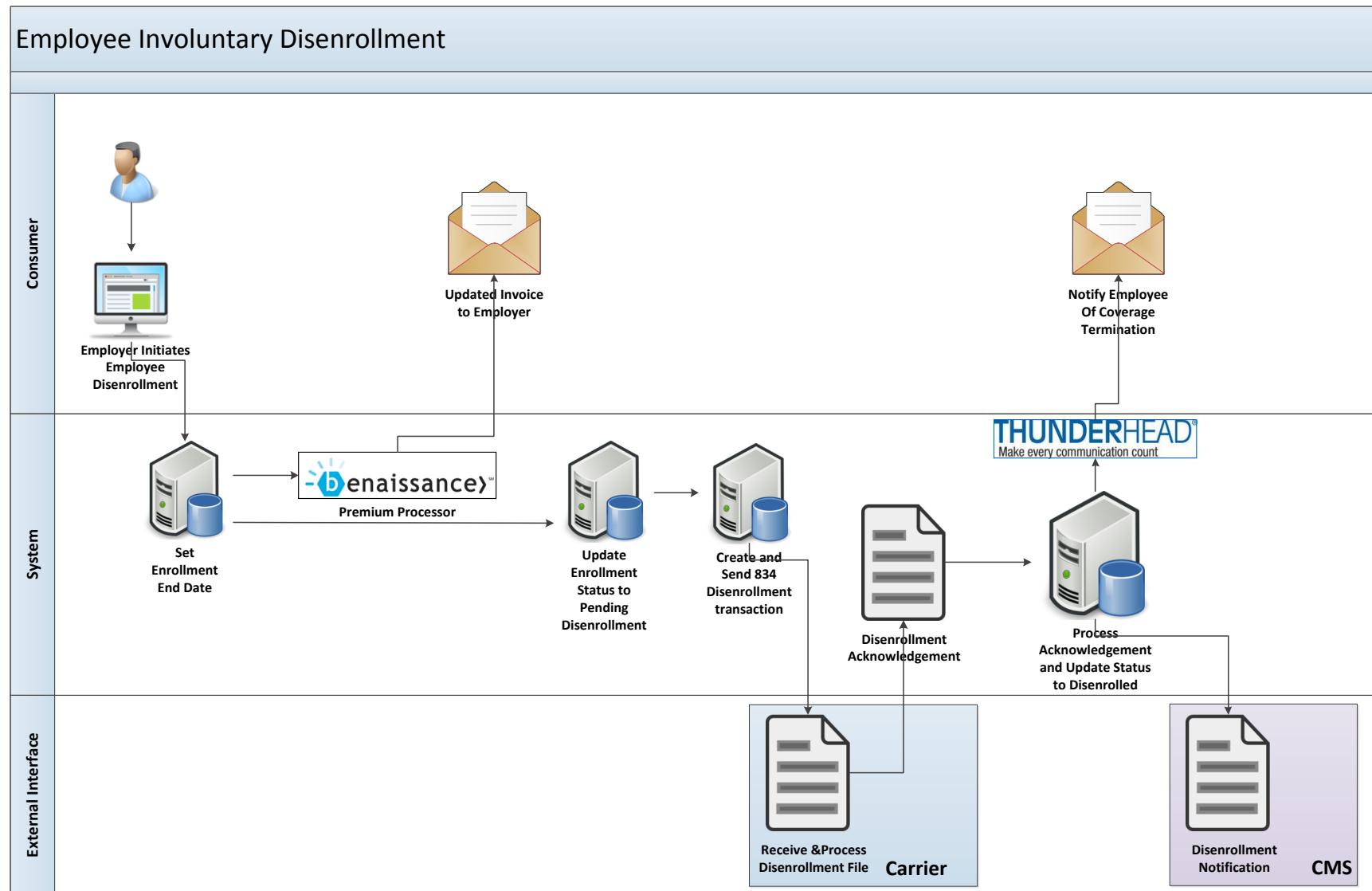
Exhibit 110: Employee Voluntary Disenrollment Business Process Flow


Exhibit 111: Employee Involuntary Disenrollment Business Process Flow


Requirements Addressed

This Exhibit includes requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, and the status of the requirement. The status of the requirement is the current status at the time of submission of this document.

Exhibit 112: Small Business Disenrollment Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-76	Provide capability to provide termination notices in multiple forms, including in email and paper form.	Validated	Notice	
SH-78	Provide capability to provide notifications (i.e. termination notice, billing notices) as imaged documents during the employer's activities and for the employer to be able to view at a later date.	Validated	Notices that are generated through the Thunderhead NOW system component will be imaged and stored in Oracle WebCenter with the ability to retrieve through My Account on the portal	
SH-79	Provide capability to administer COBRA, supporting these enrollments and disenrollments	Validated		Discussions with Exeter and SOV on-going. State to determine process for Exeter to put into LOE. Need discussion with CGI tech team about re-instatement workflow (planned for week of 5/28/13)
SH-80	Provide the capability for an employer to request a voluntary termination from QHP(s) at any time	Validated	Request can be made online via Portal or through phone call/mail to the Call Center.	
SH-81	If an employer initiates a voluntary termination through the Exchange, produce an electronic notification to the employer's employees to inform them of the employer termination. The notice should contain information relating an appeals process and other protections as defined by the Exchange	Validated	Notice	
SH-82	If an employer initiates a voluntary termination, produce an electronic notification to the Issuer to terminate the employer	Validated	834 transaction to the Carrier via Interface	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-83	If conditions for a voluntary termination, initiate the employer termination process.	Validated	Update plan end date. Send out 30-day notice to Employees. Trigger 834 transaction to Carrier. Receive response back from Carrier via 834. (working with development team to determine trigger)	
SH-84	Provide the capability to image and store documents sent to the employer regarding the employer's termination	Validated	Documents will be imaged by Thunderhead NOW system component and stored within Oracle WebCenter component	
SH-85	Update user accounts based on termination notification from issuers or terminations initiated by the Exchange	Validated	Exchange Staff will document terminations in Siebel CRM. Terminations initiated by Carrier's will be updated in Siebel through an 834 transaction. All updates will be reflected in the Portal	
SH-86	Prepare a notice to CMS with a minimum dataset of information regarding an employer's voluntary termination from a qualified health plan through the Exchange. This information may be used for small business tax credits, as well as for individual mandates, etc., as applicable	Validated	Data feed via interface	
SH-87	Provide capability to receive electronic notifications from issuers regarding involuntary terminations and initiate termination process	Validated	834 Transaction from Carriers will initiate termination process	
SH-88	If an employer has an involuntary termination through the Exchange, produce an electronic notification to the employer to inform the employer of the employer termination	Validated	Notice	
SH-90	If conditions for an involuntary termination are present, initiate the termination process.	Validated	Duplicate of SH-87	
SH-91	If an employer has an involuntary termination through the Exchange, prepare communication to the Issuer to terminate the employer.	Validated	834 transaction to the Carrier - Interface	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-92	Update user accounts based on termination notification from issuers or terminations initiated by the Exchange	Validated	Duplicate of SH-85	
SH-93	Prepare a notice to CMS with a minimum dataset of information regarding an employer's involuntary termination from a qualified health plan through the Exchange. This information may be used for small business tax credits, as well as for individual mandates, etc., as applicable	Validated	Data feed via interface	
SH-94	Notify QHPs when an employer terminates coverage and ensure coverage is discontinued	Validated	834 transaction to the Carrier. 834 acknowledgement from Carrier. Plan end date updated in Siebel CRM to discontinue coverage.	
SH-95	Notify employees when an employer terminates coverage and ensure coverage is discontinued. Employees must be given a 30 day notice of termination	Validated	Notice	
SH-199	Provide the capability for an employee to request a voluntary disenrollment from QHP(s).	Validated	Request can be made online via Portal or through phone call/mail to the Call Center	
SH-200	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee disenrollment.	Duplicate	Notice – Duplicate of NO-57	
SH-201	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the Issuer to disenroll the employee.	Validated	834 transaction to Carrier - Interface	
SH-202	Provide capability to initiate the disenrollment process.	Validated	Initiating enrollment done online via Portal. (working with development team to determine the trigger)	
SH-203	Provide capability to update user accounts based on disenrollment notification from issuers	Validated	Receive 834 transaction from Carrier. Update status to disenrolled in Siebel and reflect status in Portal.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-204	Update user accounts based on disenrollment notification from disenrollment initiated by the Exchange	Validated	Exchange Staff to make updates in Siebel CRM and status to be reflected in Portal	
SH-205	Prepare a notice to CMS with a minimum data set of information regarding an employee's disenrollment from a qualified health plan through the Exchange. This information is used for tax administration, as applicable.	Validated	Interface	
SH-206	Provide capability to receive electronic notifications from Issuers regarding disenrollment and initiate disenrollment process	Validated	834 transactions - interface	
SH-209	If conditions for an involuntary disenrollment are met, initiate the disenrollment process.	Validated	Set status for employee to 'pending' disenrollment. Trigger 834 transaction to Carrier. Receive response back from Carrier. Set status for employee to 'Disenrolled' (working with development team to determine the trigger)	
SH-210	If an employee has an involuntary disenrollment through the Exchange, prepare communication to the Issuer to terminate the employee.	Validated	834 transaction to Carrier - Interface	
SH-211	Update user accounts based on disenrollment notification from issuers or disenrollment initiated by the Exchange	Validated	Duplicate of SH-206	

Key Assumptions and Considerations

Assumptions

- Assumptions:
 - ▶ The interface to process disenrollments to and from the issuer and to CMS will be the same interface that processes enrollments.
- Constraints:
 - ▶ Disenrollment files sent or received cannot be retracted once initiated in order to maintain data integrity.

Functional Considerations

The following functional items should be considered:

The 834 transaction interface is clearly delineated to the Carriers.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Siebel CRM
- Thunderhead NOW
- Premium Processor (Benaissance)
- 834 disenrollment interface
- Oracle WebCenter

New Testing Considerations

Not applicable.

Small Business Disenrollment Design Details

Interfaces and Data Elements

- Interface to CMS to transmit disenrollment 834 information.
- Interface to Carriers to send 834 disenrollment and Group Client File and receive acknowledgement
- Interface from Carriers to receive 834 disenrollment and Group Client File and send acknowledgement

Data

- New data field(s) required (to be reviewed with development team to validate)
 - ▶ Data name or type: Disenrollment Reason
 - ▶ Description: The reason for disenrollment
 - ▶ Relationship to other data: Stored in the system when reported by the employer and is used in the 834 disenrollment transaction
 - ▶ Collected: Reported by the employer to Vermont Health Connect
 - ▶ Reported: 834 disenrollment transaction
 - ▶ Interface: 834 disenrollment
 - ▶ Access: The employer's account
 - ▶ Validation: Drop down list to be determined with development team
 - ▶ Affected processes: Disenrollment

Reports and Notices Generated

- NO-57 (SH-200): If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee disenrollment.
- SH-81: If an employer initiates a voluntary termination through the Exchange, produce an electronic notification to the employer's employees to inform them of the employer termination. The notice should contain information relating an appeals process and other protections as defined by the Exchange.
- SH-88: If an employer has an involuntary termination through the Exchange, produce an electronic notification to the employer to inform the employer of the employer termination

User Interface (Existing Screen)

(Note: to be validated with development team)

- Employer My Account screens: disenrollment reason drop-down
- Employee My Account screens: disenrollment reason drop-down
- Has Development assessed the change? No

Business Rules

- Voluntary and Involuntary terminations cannot be finalized until a 30-day notice period has been given to the employees of the plans being terminated.
- Employee Voluntary terminations – Employees voluntarily terminating coverage will be able to specify an end date of the first of the upcoming month. (Note: in final discussion with SOV – week of 5/28/13)

Small Business Disenrollment Reason Business Rules

(Note: to be validated with development team with next release).

This section describes the business and systems processes for an employer or employee to select their disenrollment date and reason. The disenrollment date and reason will be selected and then sent to Siebel CRM for storage and to Carriers for processing.

- Employer voluntary termination rules:
 - ▶ Employer voluntary termination is considered employee involuntary termination.
 - ▶ Employer voluntary termination first available date for selection will always be the current system date plus 30 days, then the first of the month following the 30-day period. This will ensure employees are given the mandatory 30-day notice for involuntary termination.
 - ▶ Employer voluntary termination reasons available in the drop-down menu will be “obtaining other coverage,” “going out of business,” and “Voluntarily leaving Exchange and not obtaining other coverage.”
- Employee Voluntary Determination Rules:
 - ▶ Employee voluntary termination first available date for selection will be the first of the upcoming month.
 - ▶ Employee voluntary termination reasons available in the drop-down menu will be “obtaining other coverage,” and “Voluntarily leaving Exchange and not obtaining other coverage.”

References

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 113: Small Business Disenrollment Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide “proof” of verification.

21.5.4 Small Business Renewal FSD

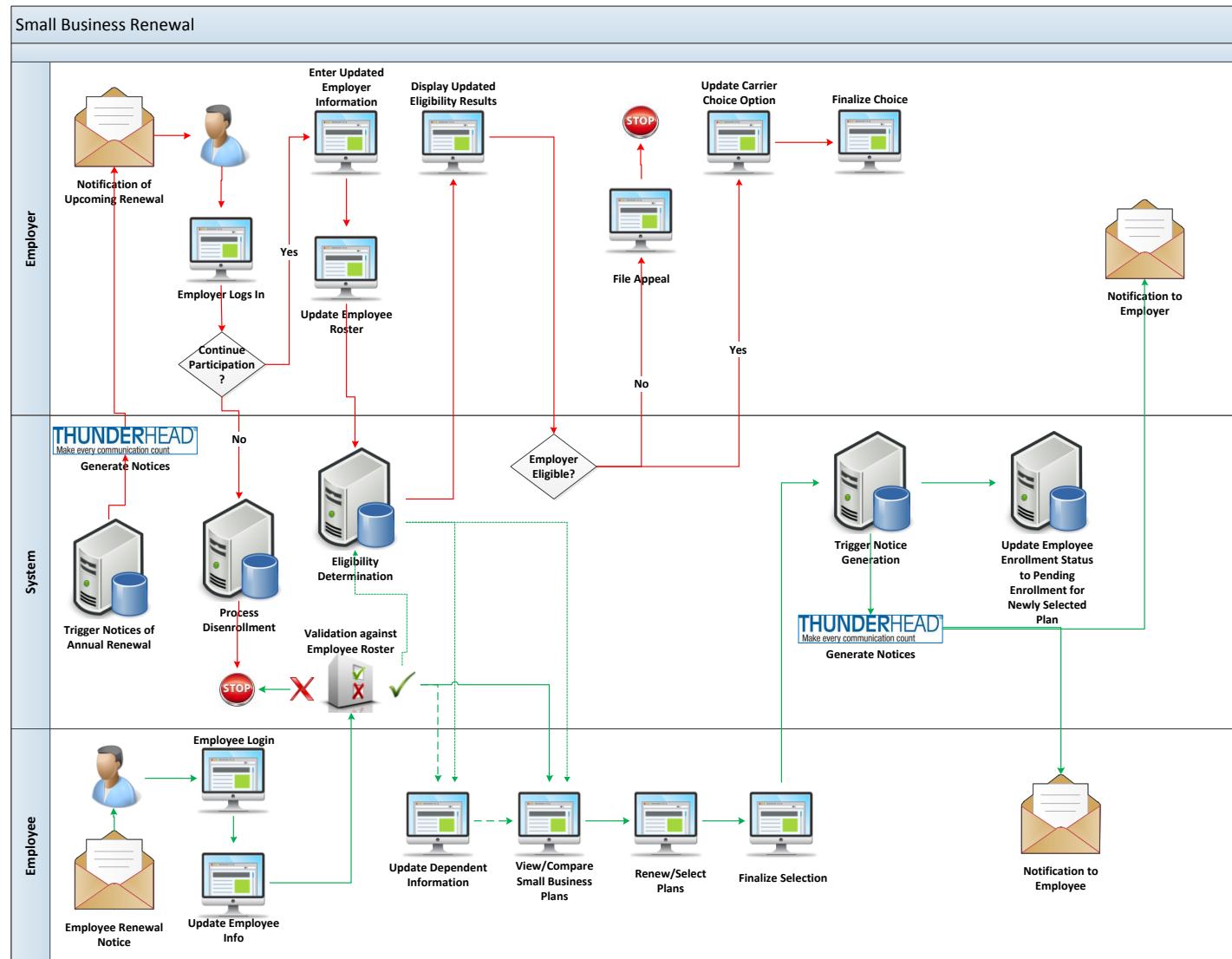
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Small Business Renewal Process

Business Process Diagram

Employers and Employees will be required to perform an annual renewal of their benefit elections. The purpose of benefit renewal is to give Employers and Employees the opportunity to change their benefit elections, should they choose to, and to be informed of any changes to the plans they are enrolled in, that is premium cost changes. Once Employers and Employees are notified that their annual renewal period is available, they will log in and update their information, if applicable, and perform plan selection.

Exhibit 114: Small Business Renewal Business Process Flow


Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 115: Small Business Renewal Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-96	Provide capability for employers to submit changes to key eligibility factors for the purpose of annual eligibility / participation renewal. Supported methods of reporting changes include written forms and web-based responses through the Exchange.	Deferred	Employer can make changes online via the Portal or via phone/mail to the Call Center	.
SH-97	Process employer responses to renew eligibility and initiate eligibility determination process if necessary.	Deferred	The system will perform an eligibility determination when the employer is finished with any updates to employer information and employee roster.	
SH-98	Provide the capability to calculate a year-to-date average for premiums paid and monthly income for display to the employer at time of renewal.	Deferred		
SH-99	Based on the availability of QHP(s), determine availability of an employer's current plan for the purposes of participation renewal.	Validated	Available Carrier's on the Exchange will determine if the current Carrier's selected as part of the employer's choice will be available for renewal	
SH-100	If the employer's current plan(s) are no longer available, provide capability to automatically suggest employer participation for a default health plan(s) for a geographic area.	Deferred	The System will need to have the availability to mark new plans as defaults for previous plans to satisfy this requirement.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-101	Provide capability for employers to submit changes to SHOP plan participation (selected plan(s), selected tier (optional), covered employers, etc.). Supported methods of enrollment changes include written forms and web-based responses through the Exchange.	Validated	The employer will be able to make changes online via the Portal or via phone/mail with the call center.	
SH-102	Based on an employer's responses to enrollment renewal, assess responses for need to initiate enrollment into a new QHP or additional employees into an existing QHP.	Validated	Based on the employer's selection of carrier choice model, the system will determine if the employees are eligible to be re-enrolled or the need for a new selection.	RFP for new plans. Will this be a renewal or just a new selection?
SH-103	Based on an employer's responses to enrollment renewal, process enrollment selections if possible.	Deleted	n/a	
SH-104	Process notification notifying employer of coverage for employees. Also, communicate any next steps required by the employer.	Validated	Notice	
SH-105	Process employer renewal in a method very similar to the initial employer application, allowing for the submission of an updated employee roster, processing plan selection options based on preferences, and submitting notifications to the employer.	Validated	The system will operate during renewal in the same fashion it operated during initial application.	
SH-106	Based on employer status, determine eligibility for SHOP participation renewal (e.g. annual renewal).	Validated	If the employer is eligible for continuation on the exchange an open enrollment renewal notice will be sent to the employer	
SH-107	Produce written notification / request for employers to verify key eligibility factors (continue to have a current EIN, etc.) for the purposes of annual eligibility / participation renewal and report changes if necessary.	Validated	Notice	
SH-108	Produce a notice of annual open enrollment (to employer).	Validated	Notice	Duplicate of SH-136
SH-109	Present opportunity for employer to log-in to initiate their renewal.	Validated	When the employer comes onto the exchange to renew, the employer will log into their account.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-136	Provide notification to employers when annual election period is approaching	Validated	Notice	
SH-138	Provide the capability to determine employer eligibility based on the employer's principal business location and satellite offices.	Validated	Continued eligibility will be determined if principal business address/satellite addresses are updated	
SH-139	Provide the capability to re-evaluate an employer's eligibility for Small Business when a change is made to the employer's work location or satellite offices	Validated	Continued eligibility will be determined if employer's work location address/satellite addresses are updated	
SH-140	Prepare and send communication to the employer regarding changes to the Employer's worksite locations	Validated	On-screen notification	
SH-216	Based on employee status, determine eligibility for Small Business Exchange participation renewal.	Validated	If employee is on the roster at the time annual open enrollment, the employee will be deemed eligible to participate.	
SH-217	Produce written notification / request for employee to verify key eligibility factors for the purposes of annual eligibility / enrollment renewal and report changes if necessary.	Duplicate	Notice	Duplicate of NO-062
SH-219	Produce a notice of annual open enrollment (to employee).	Duplicate	Notice – see Section 4.5 Business Rules	Duplicate of NO-049
SH-220	Produce notification to employees regarding the number of days left for open enrollment.	Validated	Notice	
SH-221	Provide capability for employees to submit changes to key eligibility factors for the purpose of annual eligibility / enrollment renewal. Supported methods of reporting changes include written forms and web-based responses through the Exchange.	Deferred	Employee can make changes online via the Portal or via phone/mail to the Call Center	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-222	Process employee response to renew eligibility and initiate eligibility determination process if necessary. Review employee Exchange eligibility. Have the capability to adjudicate mandatory / optionally reported changes and the resultant changes to eligibility and enrollment.	Deferred	The system will perform an eligibility determination when the employee is finished with any updates to employee information and verified against the employer's employee roster.	
SH-223	Provide the capability to calculate a year-to-date average for premiums paid for display to the employee at time of renewal.	Deferred		
SH-225	If the employee's current plan(s) are no longer available, automatically suggest employee participation for a default health plan(s) for a geographic area.	Deleted	n/a	
SH-226	Based on the availability of QHP(s), determine availability of an employee's current plan for the purposes of enrollment renewal.	Deleted	n/a	
SH-227	Provide capability for employees to submit changes to Small Business plan participation (selected plan(s), selected tier (optional), covered dependents, etc.). Supported methods of enrollment changes include written forms and web-based responses through the Exchange.	Validated	The employee will be able to make changes online via the Portal or via phone/mail with the call center.	
SH-228	Based on an employee's responses to enrollment renewal, assess responses for need to initiate enrollment into a new QHP or additional employees (or employers) into an existing QHP.	Deleted	n/a	
SH-229	Process notification to employer of coverage for employees. Also, communicate any next steps required by the employer.	Validated	Notice	Duplicate of SH-104

Key Assumptions and Considerations

Assumptions

- Known dependencies, predecessors, and successors:
 - ▶ The employer must have completed the application process
 - ▶ The employee must have completed the application process
 - ▶ Plan Years for the employer during the initial open enrollment must be 1 year in length for those beginning coverage on 1/1/14.
 - For those who are beginning coverage after 1/1/14, those plan years will end 12/31/2014.
 - ▶ If the employer does not log in to execute their renewal, their current Carrier Choice selection will be renewed if still available. Any Carriers that are not available during the renewal period will cause disenrollment for the employer and any applicable employee disenrollments.
 - ▶ Any employee who does not renew during open enrollment, the employee will be disenrolled from coverage.

Functional Considerations

The following functional items should be considered:

OneGate does not have a mechanism for employers and employees to execute renewal at this time.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Thunderhead NOW
- Siebel CRM

New Testing considerations

Functionality for renewals must be present within OneGate to perform testing.

Small Business Renewal Design Details

Interfaces and Data Elements

Not applicable.

Data

Not applicable.

Reports and Notices Generated

- NO-62: Produce written notification / request for employee to verify key eligibility factors for the purposes of annual eligibility / enrollment renewal and report changes if necessary.
- NO-49: Produce a notice of annual open enrollment. (Employee)
- SH-104: Process notification notifying employer of coverage for employees. Also, communicate any next steps required by the employer.
- SH-108: Produce a notice of annual open enrollment. (Employer)
- SH-136: Provide notification to employers when annual election period is approaching.
- SH-220: Produce notification to employees regarding the number of days left for open enrollment.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Only allow employer plan selection changes for renewal if the employer is in a renewal period and the employee notification has not been generated.
- Only allow employee plan selection changes for renewal if the employer has finalized their renewal selections and the employee packet has been generated. If the employee packet has not been generated and the employer has passed the 30 day employer renewal window, automatically generate the employee packet and allow renewal selections. (45 CFR §155.725(f): VHC must provide notification to a qualified employee of the annual open enrollment period 30 days in advance of the open enrollment period)
- Reported changes to size will not trigger disenrollment during renewal
- Name and EIN cannot be updated by the employer during renewal unless the employer contacts the call center
- When the renewal is finalized, the new rates for the upcoming renewal year will be applied.

References

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 116: Small Business Renewal Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

21.5.5 Small Business Enrollment and Information Reconciliation 834 FSD

Attendee/Contributor(s) List

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Small Business Enrollment Information Reconciliation Process

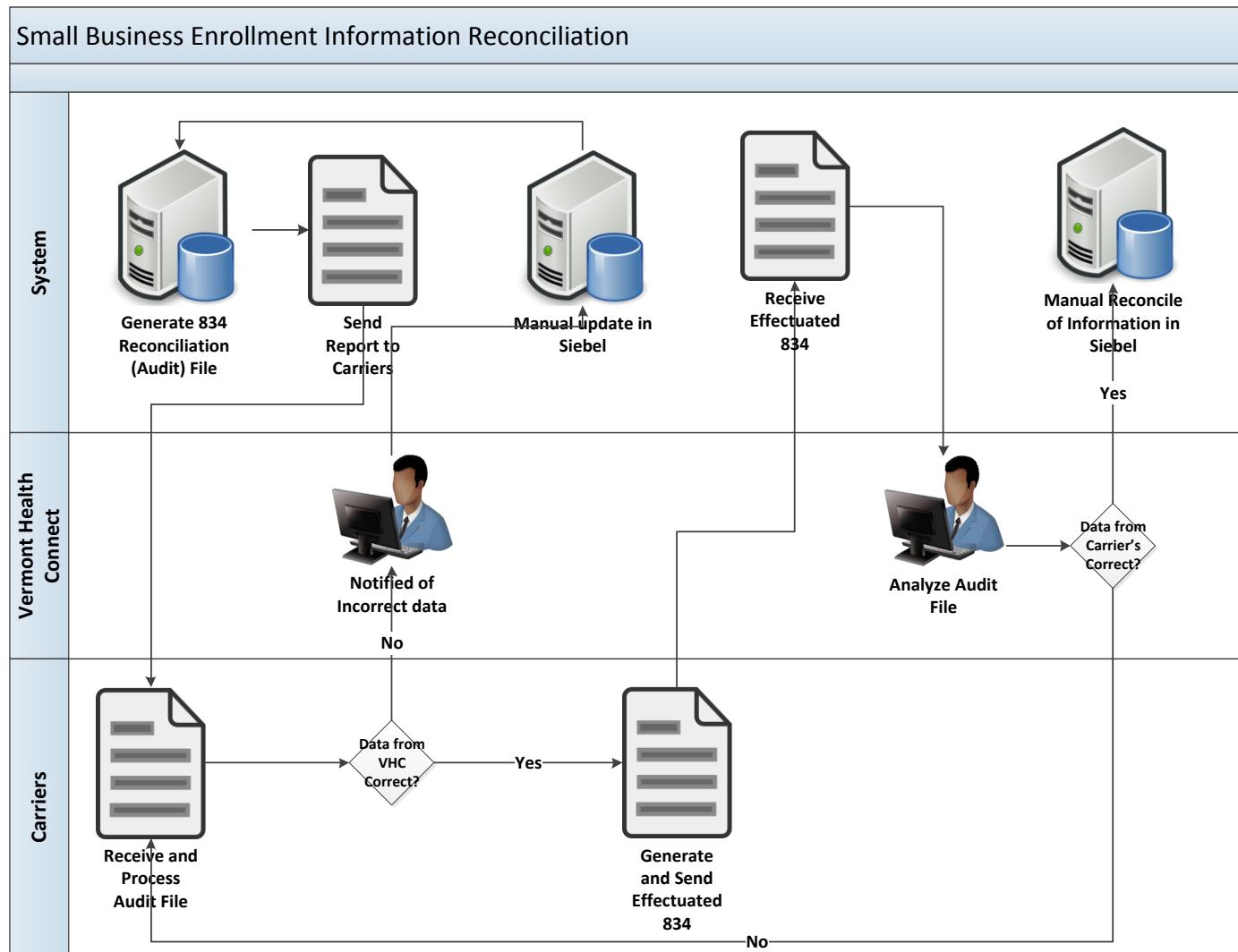
Business Process Diagram

Vermont Health Connect (VHC) and the Carriers must reconcile their enrollment information in order to ensure correct recordkeeping. On a weekly basis, every Friday, beginning October 1, 2013 and ending December 31, 2013, an 834 reconciliation (audit) file will be generated and sent to the Carriers by the VHC. Beginning in 2014 that audit file will be sent on the 20th of the month. The Carriers will then create an effectuated 834 or 834 confirmation or error message and send them back to the VHC within one

business day. The VHC reconciliation analysis will take the next 3 business days. The following will occur based on who is the initiator:

- The Carrier's data is determined to be incorrect and needs to be updated: The VT HBE reconciliation customer service group initiates an 834 transaction to Carriers.
- The VT HBE's data is determined to be incorrect and needs to be updated: Carrier will notify HBE and change will be made manually in Siebel. No 834's are sent.
- If it is unknown whether the VT HBE or Carrier's data is correct: The reconciliation customer service groups from the VT HBE and Carriers will contact each other to resolve issue.

This process will ensure all information contained in the Carrier and VHC systems is consistent.

Exhibit 117: Small Business Enrollment Info Reconciliation Business Process Flow


Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 118: Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-239	Reconcile enrollment information and employer participation information with QHPs at least monthly.	Validated	See Business Flow	

Key Assumptions and Considerations

Assumptions

- All information that is found to be incorrect will be reconciled between the Carriers and VHC.
- VHC will be the System of Record (SOR) and information contained in their reports will be the primary information.

Functional Considerations

The following functional items considered:

Not applicable

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Siebel CRM
- Interfaces with Carriers

New Testing considerations

Not applicable

Small Business Enrollment Information Reconciliation Design Details

Interfaces and Data Elements

- The VHC will have to send reconciliation reports to the Carriers through an interface.
- Internal interfaces between OneGate and Siebel for information processing, storage, and communications will be needed.

Data

Not applicable.

Reports and Notices Generated

One report will analyze discrepancies in member counts and the other will analyze discrepancies in data elements.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Weekly file transfer of audit file generated and transmitted every Friday after 5pm, from October 1st 2013 to December 31st 2013.
- Monthly reconciliation files will be generated and transmitted on the 20th of each month, after 5pm, beginning in January 2014.
- The comparison of the enrollment audit information will be manual.
- The Carrier's data is determined to be incorrect and needs to be updated: The VHC reconciliation customer service group initiates an 834 transaction to Carriers.
- The VHC data is determined to be incorrect and needs to be updated: Carrier will notify HBE and change will be made manually in Siebel. No 834's are sent.
- If it is unknown whether the VHC or Carrier's data is correct: The reconciliation customer service groups from the VHC and Carriers will contact each other to resolve issue.

References

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 119: Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

21.5.6 Small Business Password Reset FSD

Attendee/Contributor(s) List

Name	Organization	Email
Kevin Ankin	CGI Group, Inc.	kevin.ankin@cgi.com
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Small Business Password Reset Process

Business Process Diagram

Employers and employees must log into Vermont Health Connect with a unique user name and password each time they want to access their accounts. If an employee/employer forgets their password they will be able to reset it by answering a security question and entering their username. If an employee/employer forgets their username they will be able to reset it by answering their security question and entering their e-mail address. If an employer/employee cannot successfully answer their security question or access

their e-mail to retrieve their username/password, they will have to contact Consumer Assistance. Business Process Diagram discussed in Account Creation Functional Specification.

Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 120: Small Business Password Reset Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-214	If an employee does not have their log-in information (User name and/or password) available to them for plan renewal, present opportunity for the employee to request their log-in information. The log-in information may be emailed to the employee after their identity is confirmed.	Validated	Note: This topic is covered in the Account Creation Functional Specification.	

21.5.7 Small Business Paper Application FSD

Attendee/Contributor(s) List

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Small Business Paper Application Process

Business Process Diagram

The Paper Application Business Process describes the functionality that allows paper applications to be accepted and an online equivalent created in the Vermont Health Connect (VHC). In order to illustrate all steps involved in the paper application process it assumes the most comprehensive method of processing paper which would be receipt through the U.S. postal service. Paper applications and corresponding verification documentation may also be accepted and uploaded by local office employees, Call Center Representatives and Caseworkers. These methods of receipt of paper applications and verification documentation would eliminate the need for involvement of the document processing center and handling by Oracle WebCenter Capture. Refer to the Business Process Diagram contained in the Eligibility 1-4 Application Paper section.

Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 121: Small Business Paper Application Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-019	Provide capability to accept paper documents for SHOP, such as employer / employee applications and verifications.	Validated	Topic Covered in Eligibility 1-4 Application Paper	

21.6 Customer Service

21.6.1 Case Management – Customer FSD

Attendee/Contributor(s) List

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Case Management Customer Business Process

Case Management Customer Business Process Diagrams

The Consumer Assistance functional area is used by the Vermont Health Connect (VHC) for managing complaints, appeals, and consumer outreach. VHC users have access to all communication to and from the VHC in the Consumer Assistance functional area. The VHC staff may use the Consumer Assistance area to notify VHC users of special educational programs and of upcoming events, such as open enrollment. Service requests such as complaints and appeals are tracked in the Consumer Assistance area.

The Call Center functional area provides VHC with the capability to be the support portal around which all communication focuses. The Customer Relationship Management (CRM) system will manage contacts and multimedia communications, providing online access to VHC support staff about caller information and real-time transaction activity. Information will be retained within the Call Center regarding the caller's preferred method of communication. The Call Center solution will also be integrated to support billing systems, enrollment and eligibility systems, the Case Management system (secured access), and the Call Management system for data integration.

The Case Management Customer Business Processes describe the system functionality that facilitates the handling and working of contacts coming into the Vermont Health Connect call center.

The following sections describe how the system handles and assigns service requests regardless of type of entry. The Consumer Assistance staff will be broken up into different resolver groups within the call center but their view and permissions should be the same. It was decided to not limit roles to certain views as the flexibility was wanted to shift staff in and out of different roles based upon need, as the tasks they perform will overlap each other.

Case Management diagrams of Call Center Customer business processes will include the following:

Case Management - Customer

- Provide initial call customer service via Vermont Health Connect
- Track all calls to VHC
- Answer Frequently Asked Questions (FAQs)
- Client self-search for information on Portal
- Update Client record and personal information
- Process Eligibility/Application for the Client
- Assist Client in Selecting a QHP
- Assigning follow-up Service Requests to appropriate VHC staff
- Processing General Inquiries submitted
- Processing Complaints submitted
- Processing Appeals submitted
- Wrap up a customer call

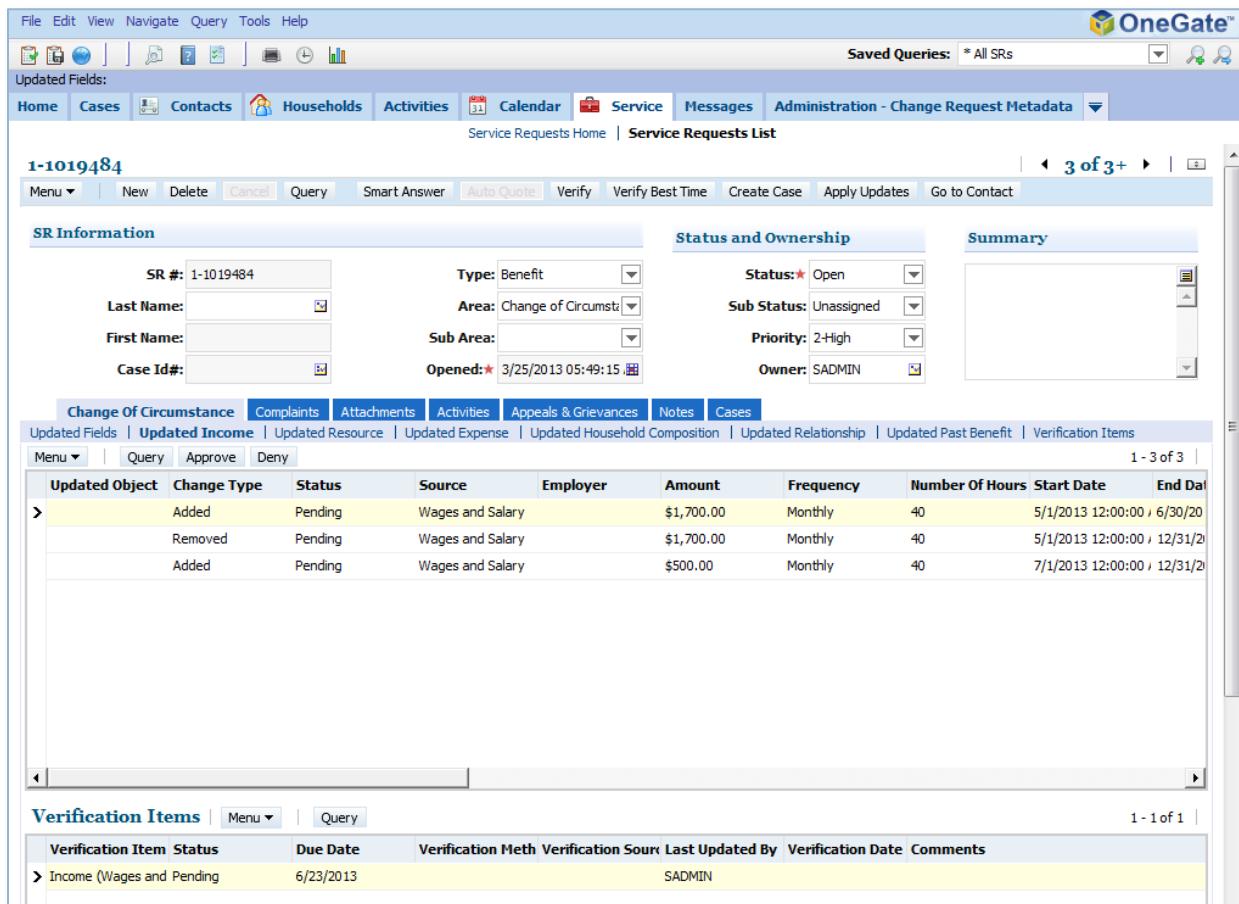
Individual business process flows and their reciprocal flow diagrams will be inserted in sections according to topic areas.

Case Management as it relates to the customer only, covers all aspects of the Call Center functionality as it applies to functions involving a specific customer and not the overall experience. This includes items from the initial contact by a Vermonter seeking information, coverage or assistance relating to their specific case.

Default View (Staff Screen)

An example of the Staff screen, which is the default view, is shown below.

Exhibit 122: Staff Screen



SR Information

SR #:	1-1019484	Type:	Benefit	Status:	Open
Last Name:		Area:	Change of Circumsta	Sub Status:	Unassigned
First Name:		Sub Area:		Priority:	2-High
Case Id#:		Opened:	3/25/2013 05:49:15	Owner:	SADMIN

Change Of Circumstance

Updated Object	Change Type	Status	Source	Employer	Amount	Frequency	Number Of Hours	Start Date	End Date
> Income	Added	Pending	Wages and Salary		\$1,700.00	Monthly	40	5/1/2013 12:00:00 / 6/30/20	
	Removed	Pending	Wages and Salary		\$1,700.00	Monthly	40	5/1/2013 12:00:00 / 12/31/20	
	Added	Pending	Wages and Salary		\$500.00	Monthly	40	7/1/2013 12:00:00 / 12/31/20	

Verification Items

Verification Item	Status	Due Date	Verification Meth	Verification Sour	Last Updated By	Verification Date	Comments
> Income (Wages and Pending)		6/23/2013			SADMIN		

Default Responsibility

The Staff/Service Request screen is the composition of views that is currently found on OneGate. Any subsequent responsibilities discussed in this document will be based upon changes made to views in this set.

Types of Consumer Assistance Staff

- **Navigators**

Navigators have a vital role in helping consumers prepare electronic and paper applications to establish eligibility and enroll in coverage through the Marketplaces and potentially qualify for an insurance affordability program. They will also provide outreach and education to raise awareness about the Marketplace, and will refer consumers to health insurance ombudsman and consumer assistance programs when necessary. Navigators will play a role in all types of Marketplaces, be funded through state and federal grant programs, and must complete comprehensive training.

- **In-Person Assistance Personnel**

In-person assistance personnel (also known as non-Navigator assistance personnel) will perform generally the same functions as Navigators. In State-based Marketplaces, they will serve as part of an optional, transitional program that the state can set up before its Marketplace is economically self-sustaining, and before its Navigator program is fully functional. Though they perform the same functions as Navigators, in-person assistance personnel will be funded through separate grants or

contracts administered by the state. In-person assistance personnel must also complete comprehensive training.

▪ **Certified Application Counselors**

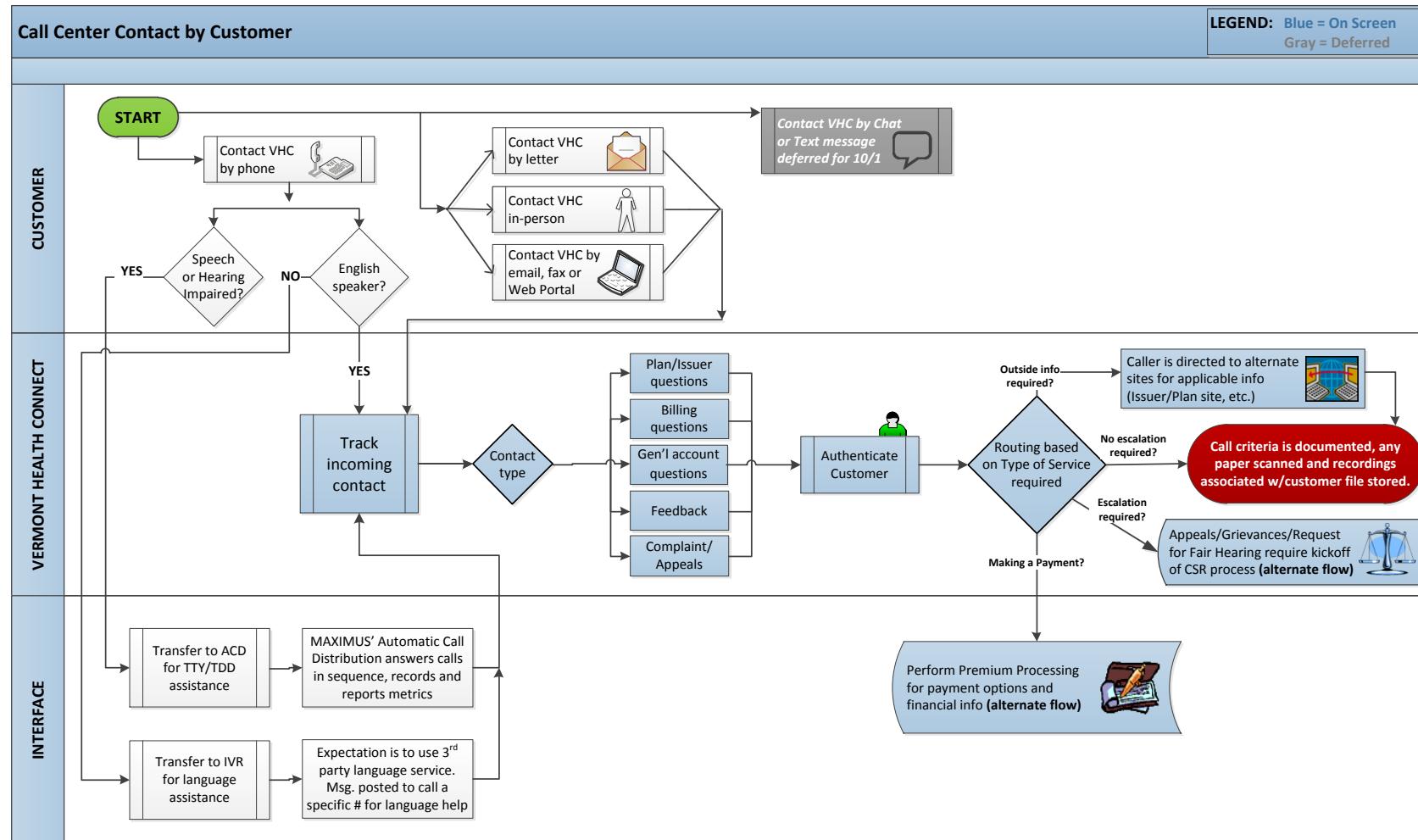
Certified application counselors are a third type of consumer assistance, described in a proposed rule from HHS. Under the proposal, they would be certified by the Marketplace to perform many of the same functions as Navigators and in-person assistance personnel – including educating consumers and helping them complete an application for coverage. However, they would not receive funding from the state or federal government for consumer assistance. Examples of possible application counselors include staff at community health centers or hospitals or consumer non-profit organizations. Certified Application Counselors would also be required to complete comprehensive training.

▪ **Agents and Brokers**

To the extent permitted by the state, licensed agents and brokers may enroll consumers in coverage through the Marketplace. Agents and brokers will be compensated by the Carrier under state law. Federal and state training and certification will apply.

Initial Calls for Customer Service to Vermont Health Connect

The following exhibit illustrates the business process flow for the provision of initial call customer service via Vermont Health Connect. Every call is tracked by creating a Service Request. If the Caller is associated to an Employer or a Carrier, then the Service Request can be also associated to that Account.

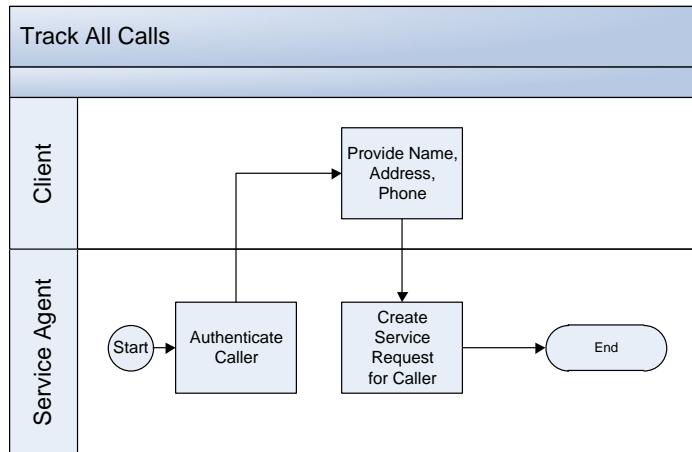
Exhibit 123: Process Flow of Initial Contact by Customer to VHC Call Center


Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
MO-002A	The system will support multimedia communications such as but not limited to: email, letter, phone, fax, web portal.	Met		
MO-002B	The system will support multimedia communications such as but not limited to chat and text messages	Deferred		
MO-005	The system shall have the ability to store the caller's preferred method of communication, including need for deaf or other language interpretation.	Met		
CAG-012A	The system shall allow consumers to submit complaint/appeal via phone, web, email, and letter.	Met		
CAG-012B	The system shall allow consumers to submit complaint/appeal via chat session	Deferred		
CAG-023	The system shall support multi-lingual communication in at least the languages specified by the VHC, and may able to support additional language (including languages that use non-Western scripts).	Met		
CAG-041	The system shall accommodate the receipt and tracking of requests or inquiries via telephone, letter, fax, walk in, email, web, or any other channel used by the consumers.	Met		
MO-020	The ACD system will have the ability to monitor and provide real time reporting and forecasting software for: Abandonment rate, Agent availability and productivity, Average speed of answer, Call length, Contact volume, Customer satisfaction, Handle time, One call resolution rate, Peak hour statistics, Identification of historical trends	Deferred		
CAG-016	The system shall have the ability to assign a priority, or level to the appeal/complaint.	Met		
CAG-040	The system shall assign a unique number to identify each instance of a contact.	Met		

Track All Calls To Vermont Health Connect

The following exhibit illustrates the business process flow for the provision to track all calls that come into Vermont Health Connect. The Service Agent can search for a Caller's record and authenticate them from the Contact screen. There are multiple fields which are searchable. The data needed for authentication is name, address, and phone number. If the Caller does not exist, a new record for them can be established.

Exhibit 124: Track All Incoming Calls to VHC Call Center



Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
MO-022	The system shall provide the capability to record all call interactions	Deferred		
CACM-010	Allow Caseworkers and customer support staff the ability to search for a specific individual's information.	Met		
CACM-011	Allow Caseworkers and Customer Support staff to view individual information entered into the Portal from the Case Mgmt system.	Met		
CACM-012	Allow Caseworkers and Customer Support Staff to add to an individual's information.	Met		
CACM-013	Allow Caseworkers and Customer Support Staff to change or modify an individual's information.	Met		
CAG-042A	The system shall track and search on contacts with basic identifying information such as time and date of contact, caller name, contact type, reason or any combination thereof.	Met		

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-042 B*	The system shall track and search on contacts with basic identifying information such as Provider number, member number, agent ID, status of issue, or any combination thereof.	Validated	Due to the unusual search criteria, Rules must be defined to search on these otherwise non-searchable areas of SR fields/workflow	See item below

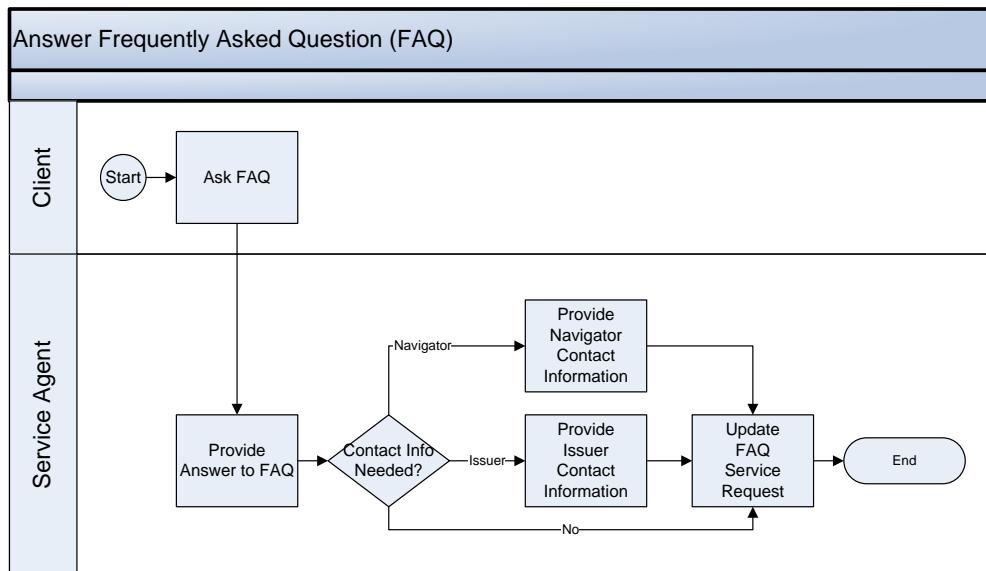
CAG-042A and CAG-042B were written to cover various ways in which it might be necessary to search for a record. In the past, a Carrier might contact the Call Center with a request to pull up the record of a Consumer in which there was an issue or question. Perhaps the [Last Name] of the Consumer was spelled incorrectly and it was not coming up in a regular query search - for this reason, alternate fields needed to be searchable to crosscheck the record as the proper one which was being searched. This is doubly important as, Vermont being a lightly populated state, it was noticed that certain surnames are quite common perhaps as a result of groups of relatives sharing a surname and residing here. For this reason as well, an alternate group of available search criteria was desirable.

Answer Frequently Asked Questions (FAQs)

The following exhibit illustrates the business process flow for the provision to track all calls that come into Vermont Health Connect. The Manage Individual Client Information business process encompasses all the user interactions with the client's data from the perspective of the Staff user.

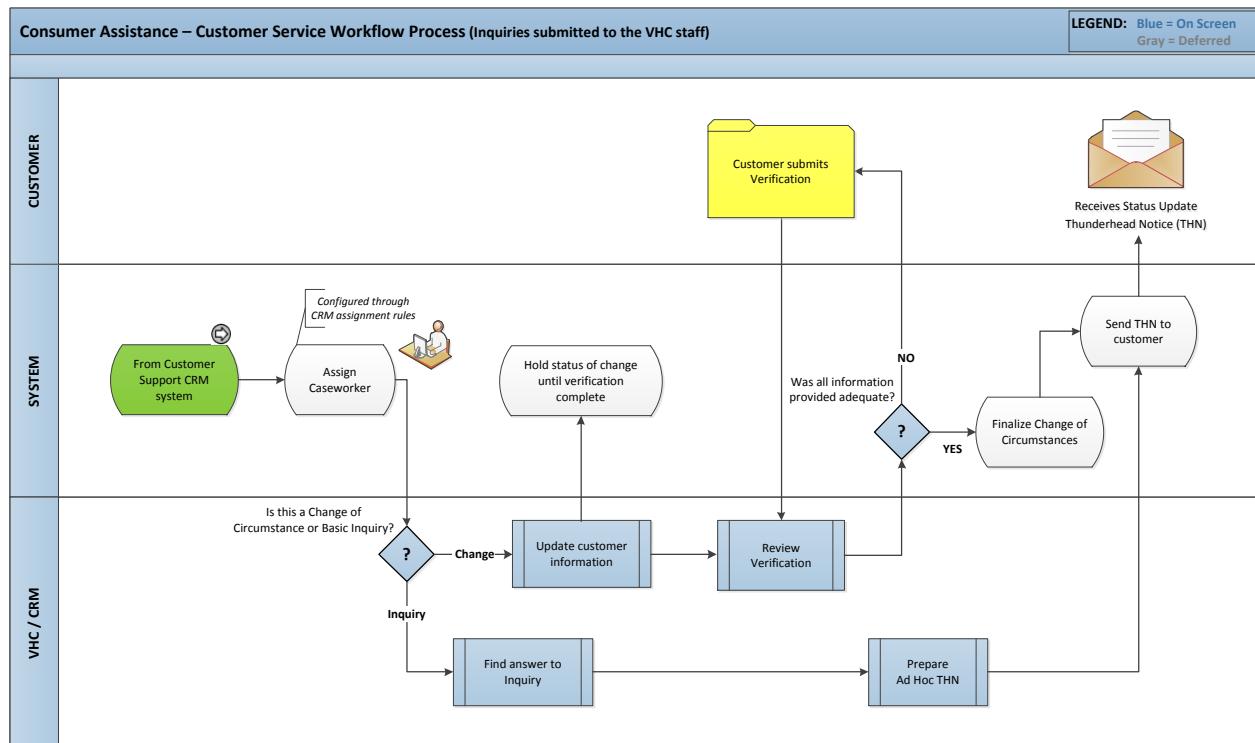
The Service Agent searches in the FAQ Knowledge Base and answers the Caller's question. A Predefined Query (PDQ) has been created, saved, and associated to the Solutions FAQ view as the default PDQ. The PDQ will filter for all solutions that are in the Category of "FAQ" (i.e., If the Caller wants to contact a Navigator, the Service Agent can provide the Phone number and Address of one or more Navigators).

Exhibit 125: Customer Assisted Answers to Frequently Asked Questions



Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-029	The system shall flag consumer assistance staff or Navigators whenever a consumer calls and queries pre-defined questions.	Met		
CAN-001	Provide consumers with general information regarding Navigator Program, including information regarding certification of Navigators and relationship to VHC, Carriers, Providers and Brokers	Met		
CAN-005a	Allow consumers to see the Navigator's credentials and certification information and select a Navigator based on them.	Met		

Exhibit 126: General Inquiries Process Flow



Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
MO-014	The system shall provide capability to prioritize agents by availability, skill set, language, and overflow from other queues.	Deferred		

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CACM-017	Provide a mechanism for role-based access control for any changes to the rules or parameters in the rules engine.	Met		
CAG-013*	The system shall provide options to secure complaints/appeals for confidentiality reasons (e.g. hide consumer name) and allow access to cases by specified consumer support staff.	Validated	Due to an increased need for privacy – a total blockout to information in places – configuration is required out of scope	See item below

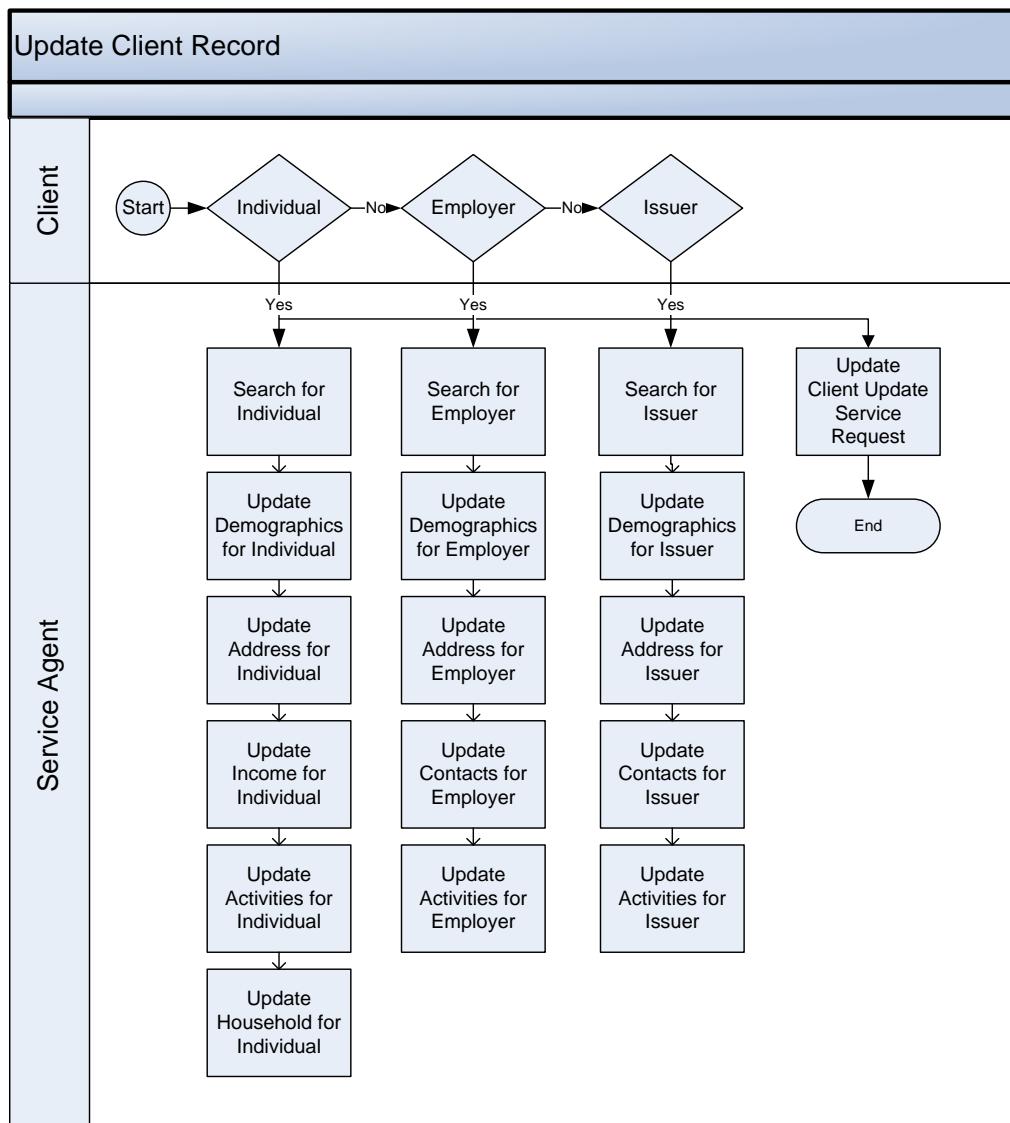
CAG-013 - Although CSRs have access to all cases, there is a need to be able to restrict views for privacy or conflict of interest by individual roles (i.e. District Manager), by entire listed division such as HAEU or by a specific individual's login. Current ACCESS system limits to 50 individual user IDs but this has proved to be not enough and unwieldy. Siebel system should block access so no customer data, including header shows. In order to prevent addition of NEW data since none is showing, there needs to be a popup that says, "Access to this case is restricted" so the CSR knows that although there is a case, their access is restricted.

Client Self-Search for Information on VHC Portal Home Page

The Home Page for the VHC Portal is currently in design and development in concert with the State of Vermont and their marketing firm. It is planned that an individual will be able to utilize the Portal to search for information on a self-serve basis without specific human contact. If the desired information is not found, a Service Request can be initiated to gather the information required through flagging the Call Center staff to complete the process for the customer.

Update Client Record and Personal Information

The Update Client Record business process encompasses all the user interactions with the client's data from the perspective of the Staff user. Personal data and data related to eligibility determination, with permission of the client and required verification or self-attestation, is updated in a Service Request by the CSR. An Individual is a Contact in the Oracle Siebel CRM. The following exhibit illustrates the business process flow for this provision.

Exhibit 127: Update Client Record


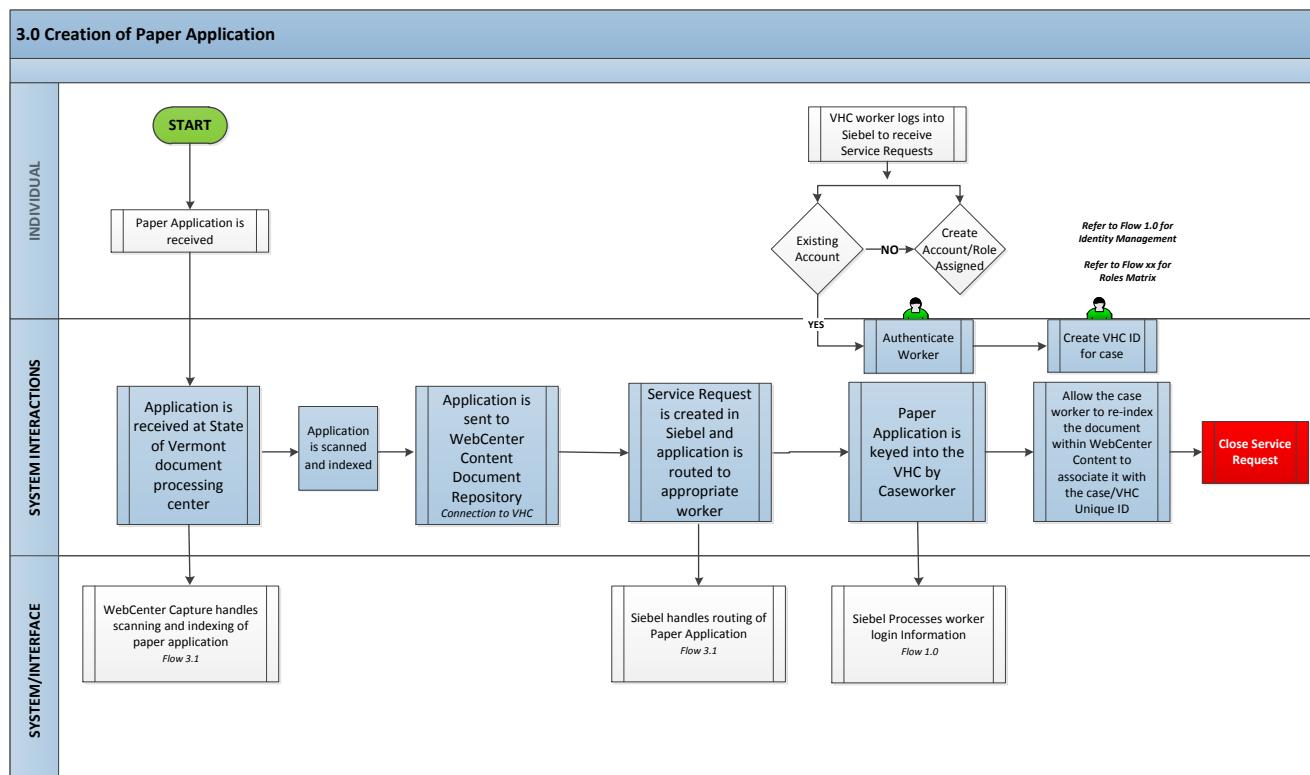
Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
MO-003	The system shall provide online access to customer support staff about caller information and real-time transaction activity (e.g. application status, premium payment).	Met		
MO-001	The CRM shall manage contacts with, including but not limited to, Providers, Members, Consumers, Navigators, Brokers and other entities as identified by the VHC.	Met		

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CACM-007	Provide mechanism to check and flag duplicate individual cases.	Met		
CACM-008	Allow Customer Service Supervisors to merge multiple individual cases into one, or split single cases into multiples cases when they deem it warranted.	Met		
CACM-009	Allow Caseworkers and Customer Support staff to mark a case duplicate, but remain unmerged.	Met		
PM-129	Users must have a way to aggregate or combine multiple versions of the same complaint or relate multiple complaints to a single complaint case	Met		

Process Eligibility for Caller

The following exhibit illustrates the business process flow for the provision for an individual to work with Call Center staff to obtain health insurance coverage – specifically Eligibility for programs.

Exhibit 128: Process Eligibility for Caller – Paper Application

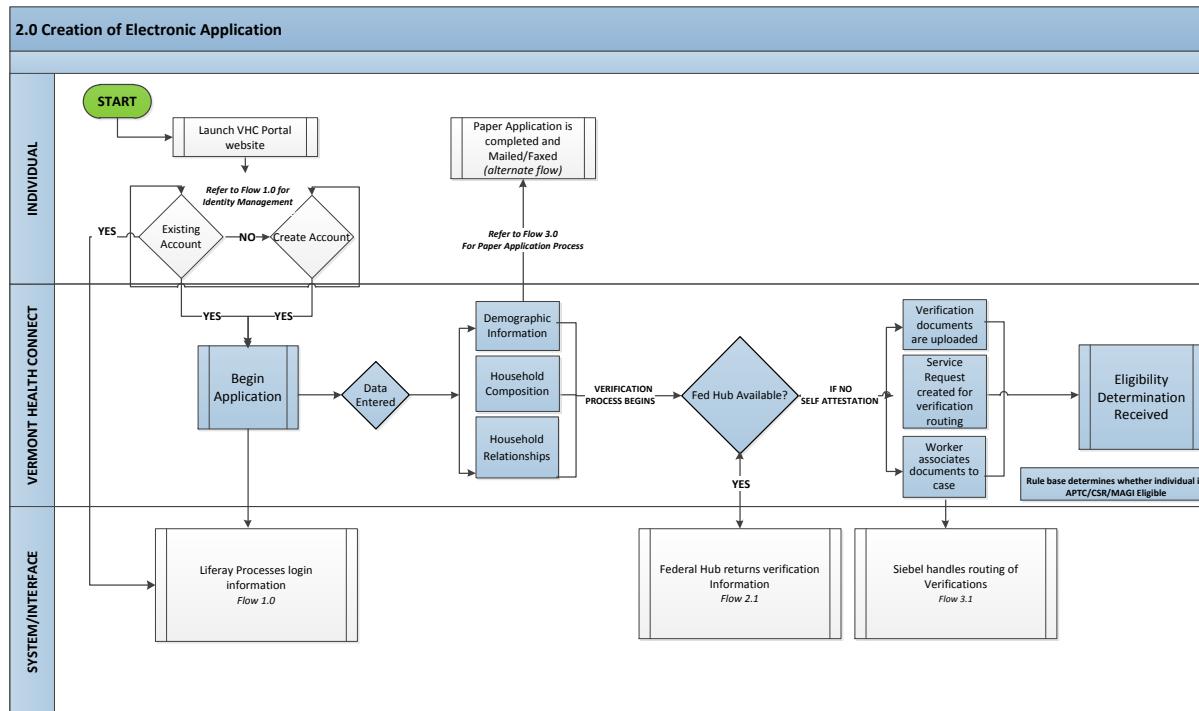


Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CACM-003	Maintain a history of an individual's eligibility status over time.	Met		
CACM-004	Allow Caseworkers and Customer Support staff to modify the eligibility/enrollment record to indicate beginning and ending dates of coverage and specify the program or product for which the individual is eligible.	Met		
CACM-005	Allow Caseworkers and Customer Support staff to deactivate a particular customer's case.	Met		
CACM-006	Allow Caseworkers and Customer Support staff to reactivate a client's case based on new information, new application or redetermination.	Met		
CAG-003	The system shall allow staff to attach relevant documents to complaint or appeal.	Met		
CAG-035	Support electronic document management (EDM) capabilities	Met		
CAG-036	The system shall provide the ability to upload attachments to all individual and correspondence records.	Met		
CAG-037	The system shall provide the ability to view related correspondence records from a single correspondence record.	Met		
CAG-039	The system shall link scanned images to correspondence and records to provide one view of all related material (images, letters, or contacts with staff).	Met		

Creation of Electronic Application for Customer

The following exhibit illustrates the business process flow to assess individual eligibility and involves verification through the Federal Hub as shown.

Exhibit 129: Process Eligibility for Caller – Electronic Application



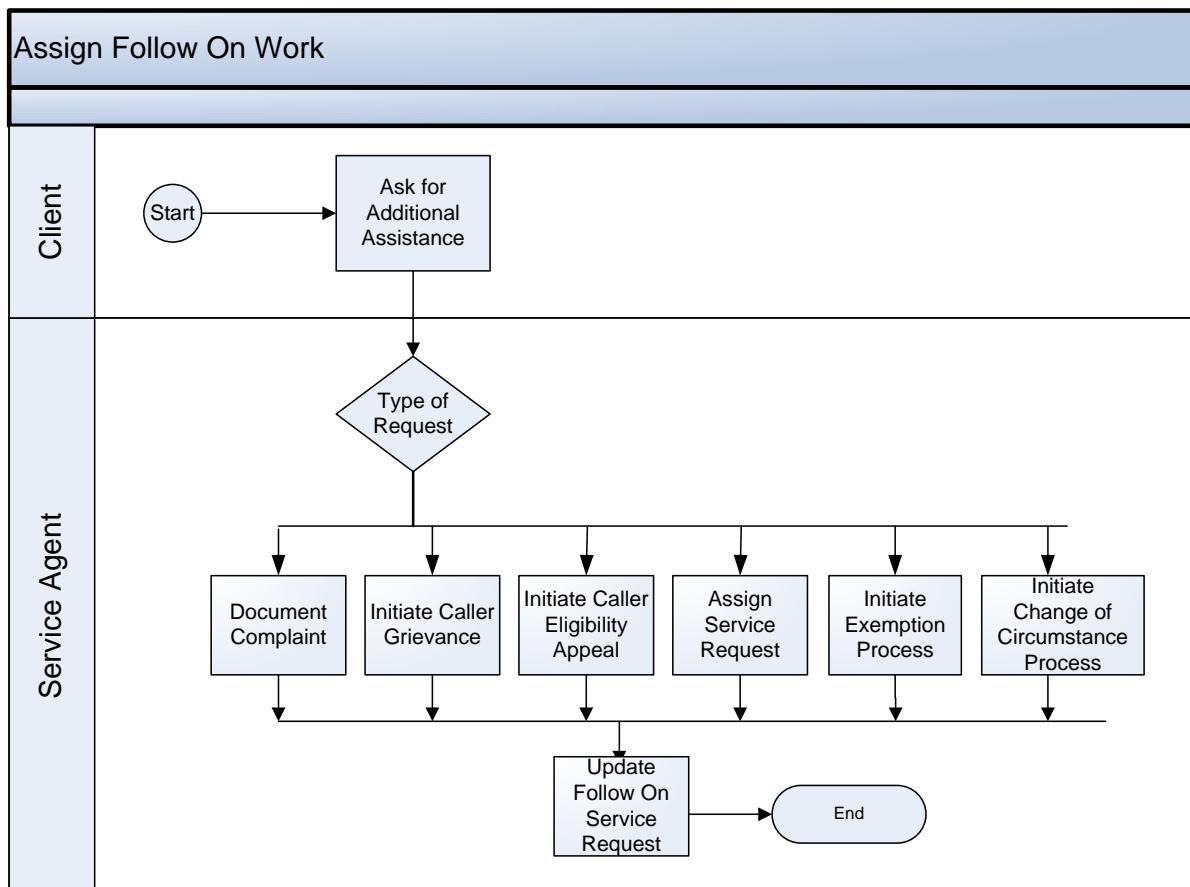
Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
SH-156	Provide capability for employees to request further assistance through Chat Support (online assistance from a customer service representative) during the application process.	Deferred		
CACM-014	Allow Caseworkers and Customer Support staff to search for the individual's eligibility details.	Met		
CACM-015	Allow Caseworkers and Customer Support Staff to view the individual's eligibility details (e.g., income sources, citizenship, immigration status, etc.).	Met		
CACM-016	Allow Caseworkers and Customer Support staff to add new data into the individual's eligibility details (income sources, citizenship, immigration status, etc.).	Met		

Assign Follow on Work

The following exhibit illustrates the business process flow for the provision for an individual to ask Call Center staff for additional assistance beyond what they were able to do on their own through the

OneGate Portal. This set of processes also includes the Escalation flows as relate to Complaints, Grievances, Fair Hearings and Appeals.

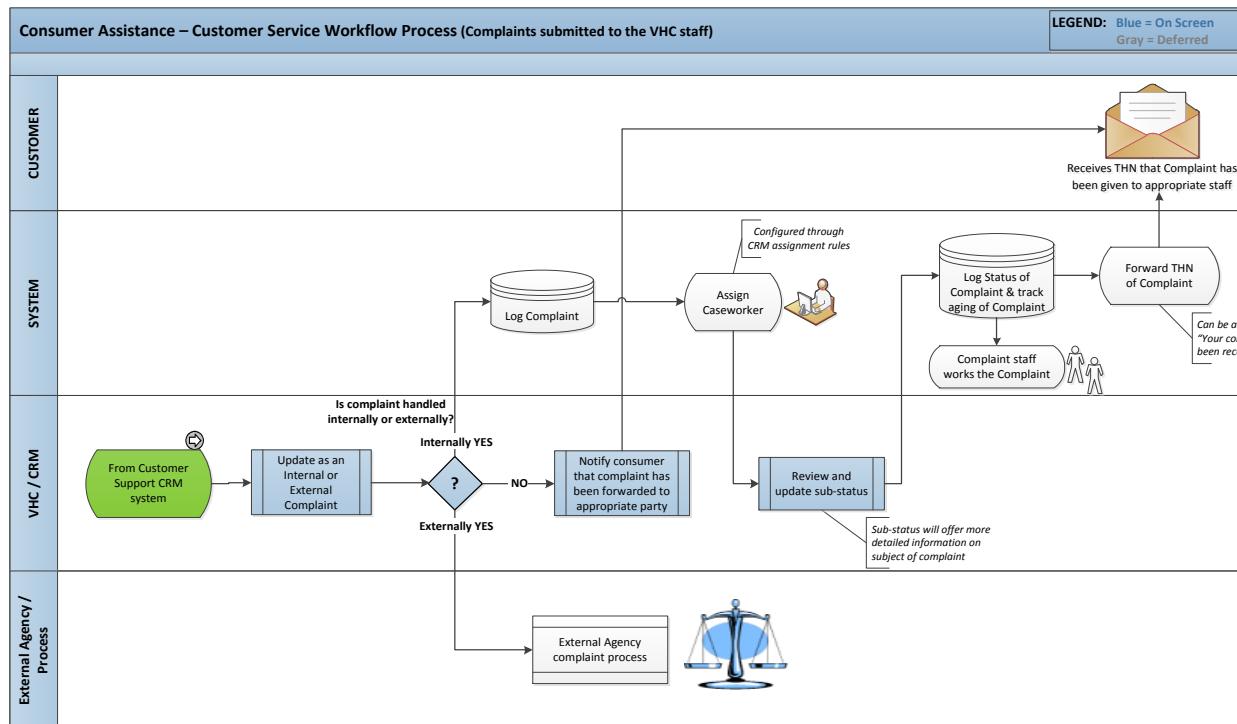
Exhibit 130: Assign Follow On Work



Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-001	The system must support the complaints/appeals process.	Met		
CAG-020	The system shall ask and store consumers' preferred method of communication.	Met		
PM-123	Allow Exchange users such as consumers, navigators, etc. to log into their Exchange account to post/submit a complaint	Met		

Document Complaint

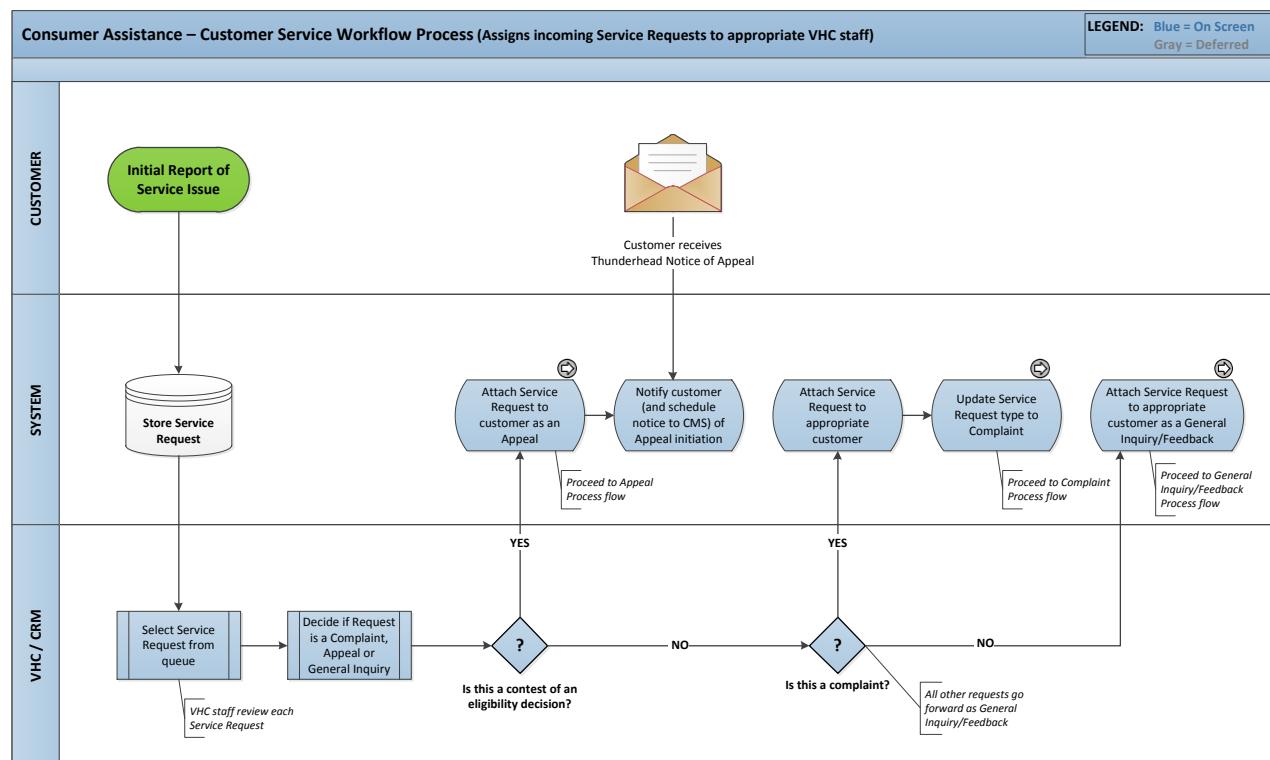
The Caller may ask to log a complaint. Service Agent should make note of customer's preferred manner of contact to provide information on cases in manner specified.

Exhibit 131: COMPLAINT Workflow Process


Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-001	The system must support the complaints/appeals process.	Met		
CAG-002	The system shall allow customer support representative to log customer complaints and appeals.	Duplicate		Dup of CAG-012
CAG-006	The system will track time frames and deadlines for responding to complaints and appeals.	Met		
CAG-008	The system shall track complaint or appeal throughout process so that specified Complaints/Appeals staff can view status, see where it is in process and report back to consumer at any time.	Met		
CAG-009	The system shall support the process for sending appeals/complaints to be reviewed by appropriate parties within and outside the State and recording decisions, adding documentation, etc.	Met		
PM-042	Provide ability for Carriers to provide relevant Complaint and Compliance Information	Deferred	Per Margot, 5/29/13	
PM-121	Provide web-based interface for Exchange consumers, providers, brokers,	Met		

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
	navigators, etc. to enter complaints about Exchange Carriers and/or Plans will capture complaint data including: Exchange user ID (for consumers, navigators, etc.), Provider id (for providers), Carrier, Plan, Complaint description/detail, Complaint type, Complaint source			
PM-122	Provide automatic electronic notification of receipt for complaints submitted through the web interface.	Met		
SH-111	Provide the capability to capture information and details of an Employer complaint.	Met		

Exhibit 132: Assignment of SR Workflow Process

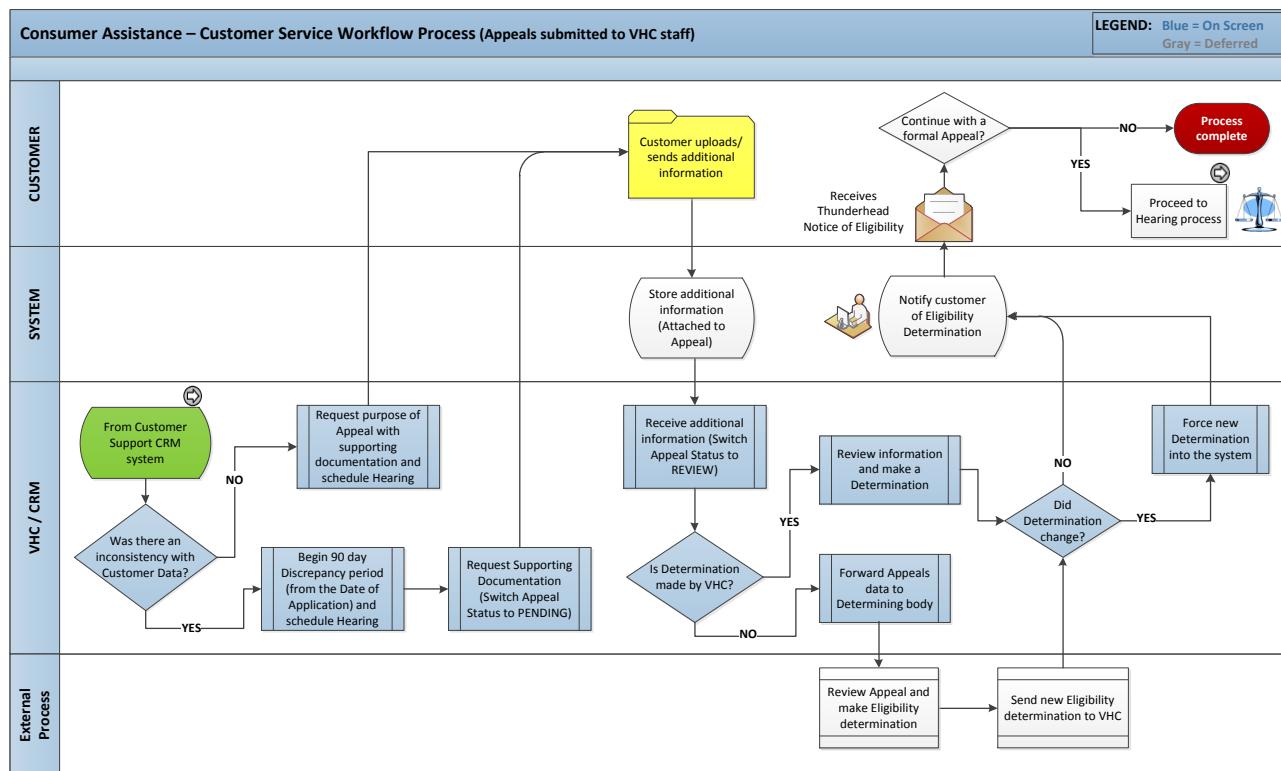


Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-004	Associate recorded calls/transcripts and online chat sessions log with the appropriate appeal	Met		
CAG-007	The system shall allow customer support representative to generate letters to consumer throughout grievance/appeals/fair hearings/complaints process.	Met		

Update Follow on Service Request

When the Caller's Follow On request has been completed, the Service Agent can document the call to indicate the topic and the resolution.

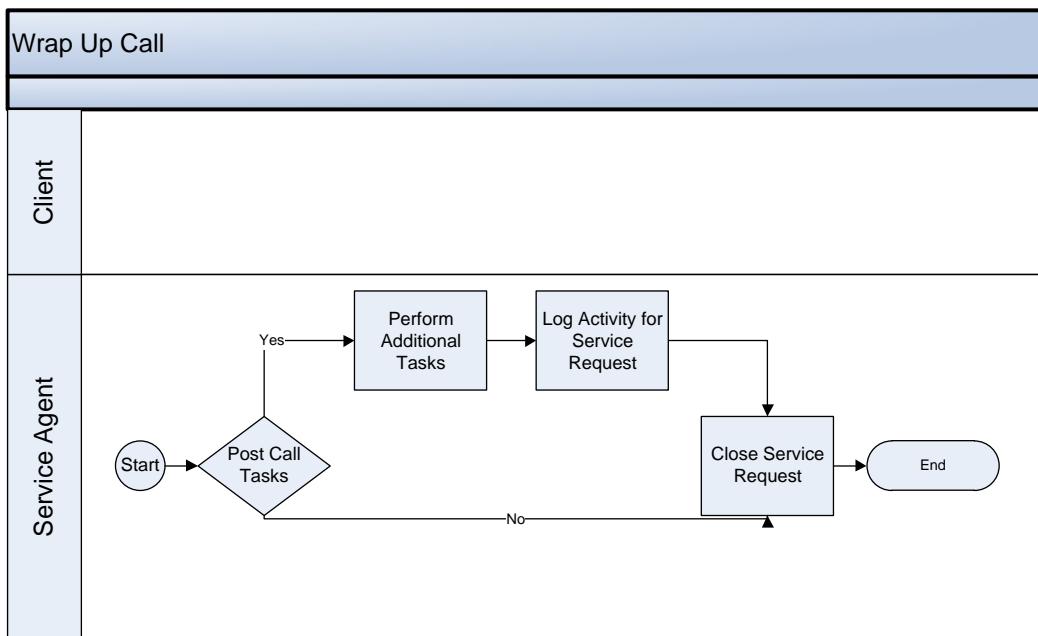
Exhibit 133: APPEALS SR Workflow Process



Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-001	The system must support the complaints/appeals process.	Met		

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-005	The system shall prompt customer support representative on complaints/grievances/ appeals/fair hearings workflow by integrating with workflow/document management system.	Met		
CAG-011A	The system shall allow appeals/complaints staff to manage cases within the system using options including, response and review dates, document management, email, and fax.	Met		
CAG-011B*	The system shall allow appeals/complaints staff to manage cases within the system using options which include tickler files.	Deferred	The "Tickler File" is an additional system alert for deadline approach	See item below
CACM-001	Provide the ability to add multiple dated narratives to a case and track and maintain changes over time via the narratives.	Met		
SH-121	Allow employers to request and receive a second appeal review process, providing very similar, if not the same, steps in the second appeal process as the first appeal process.	Met		

**CAG-011A and CAG-011B were written to cover various ways in which it might be necessary to manage case alerts throughout the appeals and complaints process. The Tickler File function is an additional alert that functions as an identified reminder of a specified time period as identified by the CSR. This system alert would be a reminder before a specific function or activity is due on an Appeal/Complaint/Grievance/Fair Hearing as part of the process. It is understood by the SOV that this item would not be part of the 10/1 deliverable product.*

Wrap Up Service Request Call
Exhibit 134: Wrap Up Service Request / Call

Requirements Addressed

Requirements which are “Met” by this functionality, requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s) are addressed in the individual applicable sections.

Each table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Key Assumptions and Considerations
Assumptions

It is assumed that the individual creating an account on the OneGate Portal must have a valid email address in order to establish an account on the VTC.

- There are several noticing and reporting implications
- The Call/Contact Center must be operational
- The classification given to Service Requests are overwritten by Call Center Staff
- The Call Center will be able to assign and categorize requests
- The Call Center staff will have the ability to attach documents to case
- The Call Center staff do NOT need Navigator certification
- Triage staff will be able to send ad hoc notices
- Template notices will be searchable/categorized

Functional Considerations

The following functional items should be considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins: a login for the Portal with the role of individual and a login with the appropriate role in Siebel
- The individual must choose a role of Individual, Employee, Employer, Broker or Navigator in order to establish an account for the VHC Portal
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV
- Workflow triage ability in the system
- Method of storing and categorizing complaints
- Method of storing and categorizing appeals
- Method of storing and categorizing inquiries
- Views must be defined based on what is currently available (General Triage for Inquiries, Appeals, General and Complaints, as well as supervisory for Triage and Supervisory for others)

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate
- Oracle Identity Management Suite
- Siebel Public Sector CRM
- Web Portal for Customers
- OneGate Configuration (by Siebel)
- Thunderhead Noticing
- Benaissance Premium Processing

Shown below are non-functional requirements affiliated with the Call Center & Customer Assistance RTM. These requirements have been reallocated as TECHNICAL.

Exhibit 135: Technical Requirements

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
CAG-032	The system shall improve collaboration and workflow driven processes among staff by integrating CRM with workflow, document management and document imaging technology	Validated		Non-functional requirement
MO-004	The system shall provide the ability to archive and purge calls, contacts, correspondence from the CRM according to Exchange-defined criteria.	Validated		Non-functional requirement
MO-006	The system shall provide speech and hearing impaired customers with the ability to communicate through a Teletypewriter (TTY) or Telecom Display Device (TDD).	Validated		Non-functional requirement

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
MO-007	The CRM solution shall seamlessly integrate with at least the following Customer Support technology systems and needs: Call logging and resolution tracking, External IVR, Electronic document management, Training support, Workflow management, Reporting, Quality Monitoring	Validated		Non-functional requirement
MO-008a	The system shall maintain a record of inquiry and correspondence data online, with periodic backups managed by CGI.	Validated		Non-functional requirement
MO-008b	The call center shall be able to store record of recordings of assisted calls, in a time frame specified by the VHC.	Validated		Non-functional requirement
MO-010	The system shall be expandable in order to support multiple contact centers in separate physical locations that support different programs, including support for the Department of Human Services customer support functions.	Validated		Non-functional requirement
MO-011	The system shall have the ability to enable security around confidential consumer data allowing designated staff access.	Validated		Non-functional requirement
MO-012	The system shall interface with and support the use of an IVR system.	Validated		Non-functional requirement
MO-013	The system shall provide Automatic Call Distribution (ACD) capability to answer calls from customers in sequence and record and report metrics.	Validated		Non-functional requirement
MO-017	The system will allow individual contact centers to identify and set performance metrics (e.g. 3% abandonment rate, 15 second speed of answer).	Validated		Non-functional requirement
MO-018	The system will alert management and staff when service levels are not being met.	Validated		Non-functional requirement

The following are Requirements affiliated with the Call Center & Customer Assistance RTM. These requirements have been reallocated as REPORTING FUNCTIONALITY.

Exhibit 136: Reporting Functionality

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
PM-120	Provide the ability to receive, store and track electronic Carrier and Plan complaint data from the appropriate CMS system for plan management and fiscal management functions on a periodic basis. Complaint data can include: Carrier, Plan, Number of complaints, Complaint type, Complaint description/detail	Validated		REPORTING

Ref Code	Description	Status	Design/Solution Description	OPEN Action Items
PM-137	Provide electronic Exchange Carrier complaint data to the Insurance Division on a periodic basis. Complaint data can include: Carrier, Number of complaints, Complaint type, Complaint description/detail	Validated		REPORTING
PM-138	Provide the capability to send an electronic complaint referral to: A Carrier, OIC, Eligibility case/complaint workers, Exchange customer service, Others (to be defined)	Validated		REPORTING

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator
- Accounts should be created prior to executing test scripts
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV
- The tester must test condition for the portal login.

Customer Case Management Design Details

Interfaces and Data Elements

Not applicable.

Data

Not applicable.

Reports and Notices Generated

- No Notices will be generated for Portal Logins
- Activity log information will be able to be extracted from Oracle Identity Manager on an as-needed basis.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/lose employment.

References

The *D-14 Functional Requirements Document* (previously named *F-14 Requirements Traceability Matrix (RTM)*).

- OneGate Individuals and Families Portal Experience User Guide, ver. 3.1
- OneGate Brokers and Navigators Portal Experience User Guide, ver. 3.2.1
- OneGate Case Management Configuration Guide, ver. 3.2

21.6.2 Case Management – Administrative FSD

Attendee/Contributor(s) List

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Case Management Administration Business Process

Case Management Administration Business Process Diagrams

The *Consumer Assistance* functional area is used by the VHC for managing complaints, appeals and consumer outreach. VHC users have access to all communication to and from the VHC in the Consumer Assistance functional area. The VHC staff may use the Consumer Assistance area to notify VHC users of special educational programs and of upcoming events, such as open enrollment. Service Requests (SR) or any operation that requires interaction on the part of a customer service representative, such as logging a complaint or an appeal, are tracked in the Consumer Assistance area.

The *Call Center* functional area provides VHC with the capability to be the support portal around which all communication focuses. The Customer Relationship Management (CRM) system will manage contacts and multimedia communications, providing online access to VHC support staff about caller information and real-time transaction activity. Information will be retained within the Call Center regarding the caller's preferred method of communication. The Call Center solution will also be integrated to support billing systems, enrollment and eligibility systems, the Case Management system (secured access), and the Call Management system for data integration.

The Case Management Administration business processes describe the system functionality that facilitates the handling and working of contacts coming into the Vermont Health Connect call center.

Case Management diagrams of Call Center Administrative business processes will include the following:

- Vermont Health Connect staff's ability to update/modify cases as needed
- Track and create various metrics for quality assurance purposes including reports, Electronic Data Management (EDM), file attachments and contact tracking
- Outreach and Education initiatives performed by VHC staff including Navigator Assistance and VHC education event community outreach
- Workflow driven processes and functions

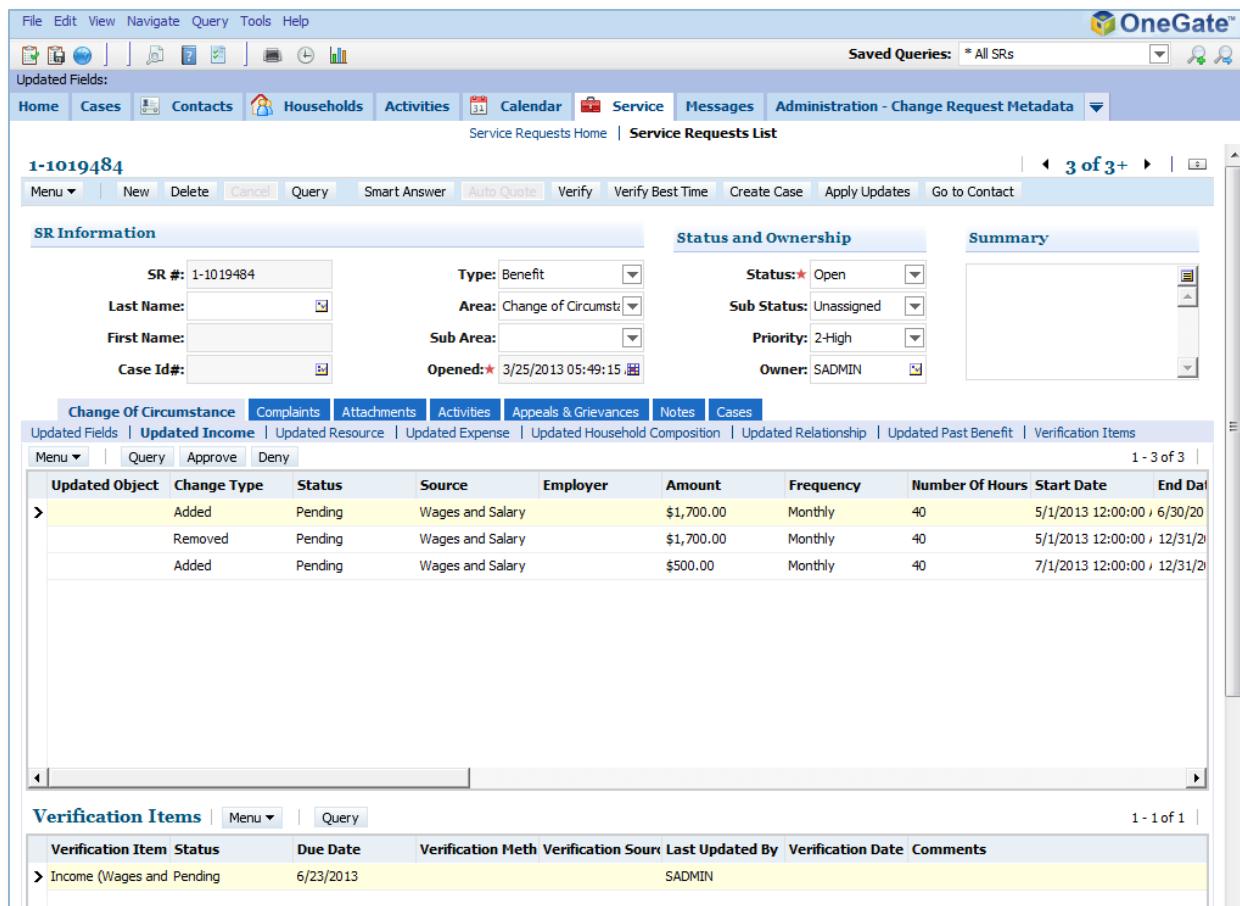
Individual business process flows and their reciprocal flow diagrams will be inserted in sections according to topic areas.

The scope of Administrative Case Management includes those functions that support back office processes and the overall successful operation of the call center, and does not include any elements of case management. This includes processes such as performance metrics, reporting, Outreach & Education initiatives as well as overall workflow driven functionality.

Default Views

This Exhibit shows an example of the default view of the Staff screen, utilized by VHC customer service members.

Exhibit 137: Staff Screen



The screenshot displays the 'Staff Screen' of the Vermont Health Connect system. At the top, a navigation bar includes links for File, Edit, View, Navigate, Query, Tools, Help, and OneGate™. Below the navigation bar is a toolbar with various icons. The main area shows a service request detail for SR # 1-1019484. The 'SR Information' section contains fields for SR #, Last Name, First Name, Case Id#, Type (Benefit), Area (Change of Circumst...), Sub Area, Status (Open), Sub Status (Unassigned), Priority (2-High), and Owner (SADMIN). The 'Status and Ownership' section shows these details. The 'Summary' section is currently empty. Below the SR Information is a tabbed panel with tabs for Change Of Circumstance, Complaints, Attachments, Activities, Appeals & Grievances, Notes, and Cases. The 'Activities' tab is selected, showing a table of changes made to the resource. The table has columns for Updated Object, Change Type, Status, Source, Employer, Amount, Frequency, Number Of Hours, Start Date, and End Date. Three rows are listed: one 'Added' row and two 'Removed' rows. At the bottom, a 'Verification Items' section shows a table with a single row for 'Income (Wages and Pending)' with a due date of 6/23/2013 and status SADMIN.

Updated Object	Change Type	Status	Source	Employer	Amount	Frequency	Number Of Hours	Start Date	End Date
>	Added	Pending	Wages and Salary		\$1,700.00	Monthly	40	5/1/2013 12:00:00	6/30/20
	Removed	Pending	Wages and Salary		\$1,700.00	Monthly	40	5/1/2013 12:00:00	12/31/20
	Added	Pending	Wages and Salary		\$500.00	Monthly	40	7/1/2013 12:00:00	12/31/20

Verification Item	Status	Due Date	Verification Meth	Verification Sour	Last Updated By	Verification Date	Comments
> Income (Wages and Pending)		6/23/2013			SADMIN		

Other examples shown in the following landscape screens are diagrams of existing workflow processes driven by a customer request coming into the VHC Portal and flowing into the CRM. They trace the paths through the CRM and back and forth to the various recipients as designated.

The following Exhibits show the Process Flow for Case Management Administration:

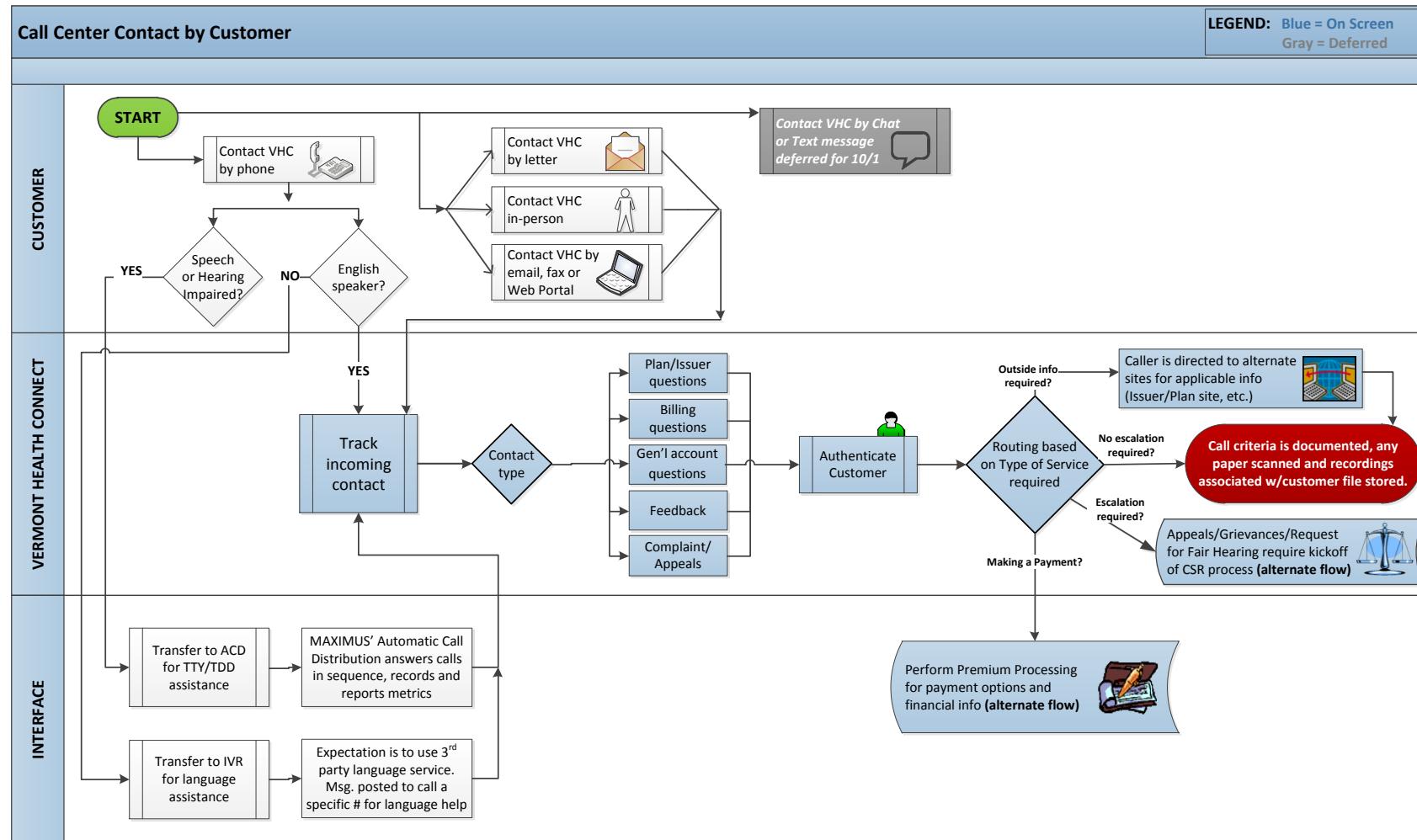
Exhibit 138: Process Flow of Initial Contact by Customer to VHC Call Center


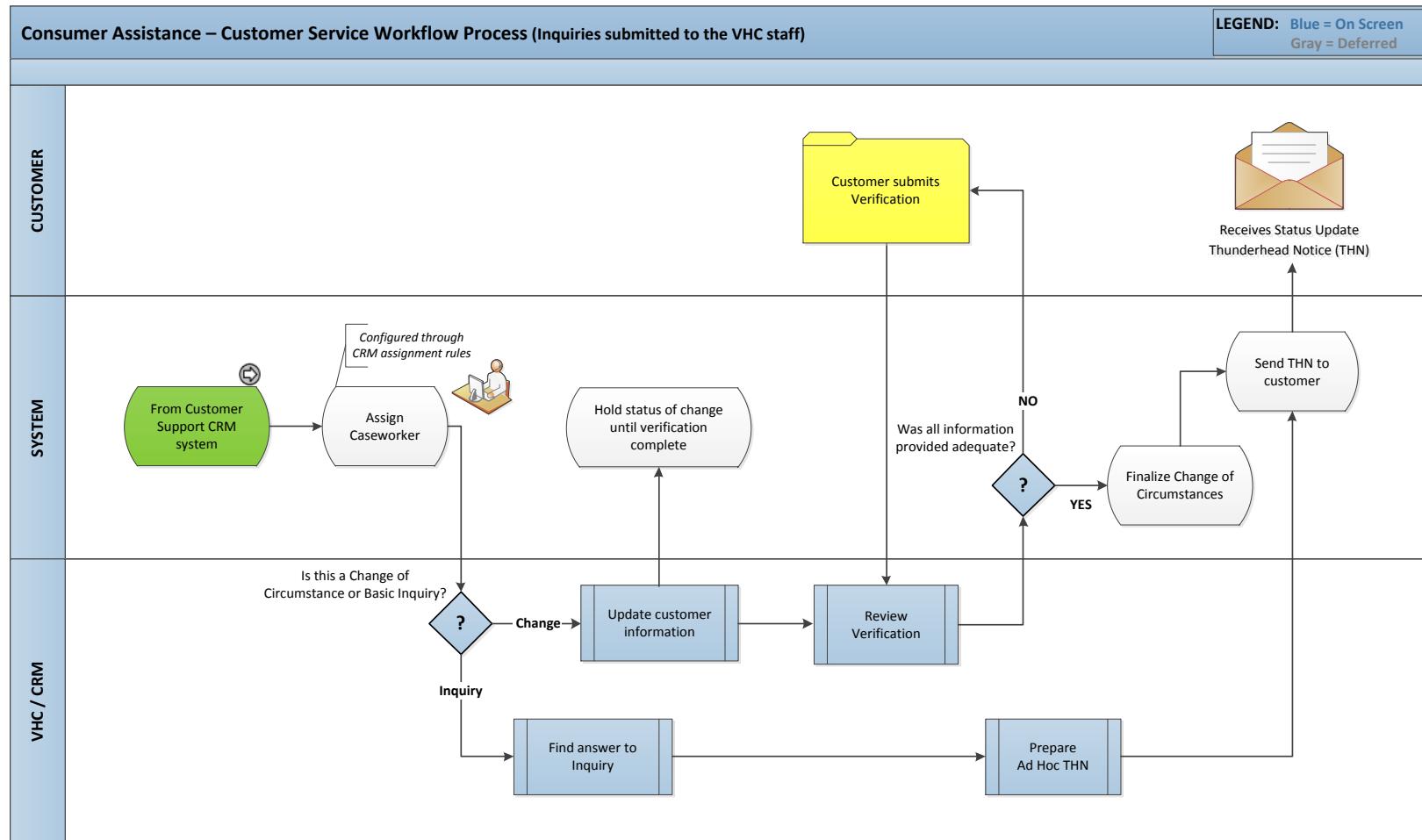
Exhibit 139: General Inquiries Process Flow


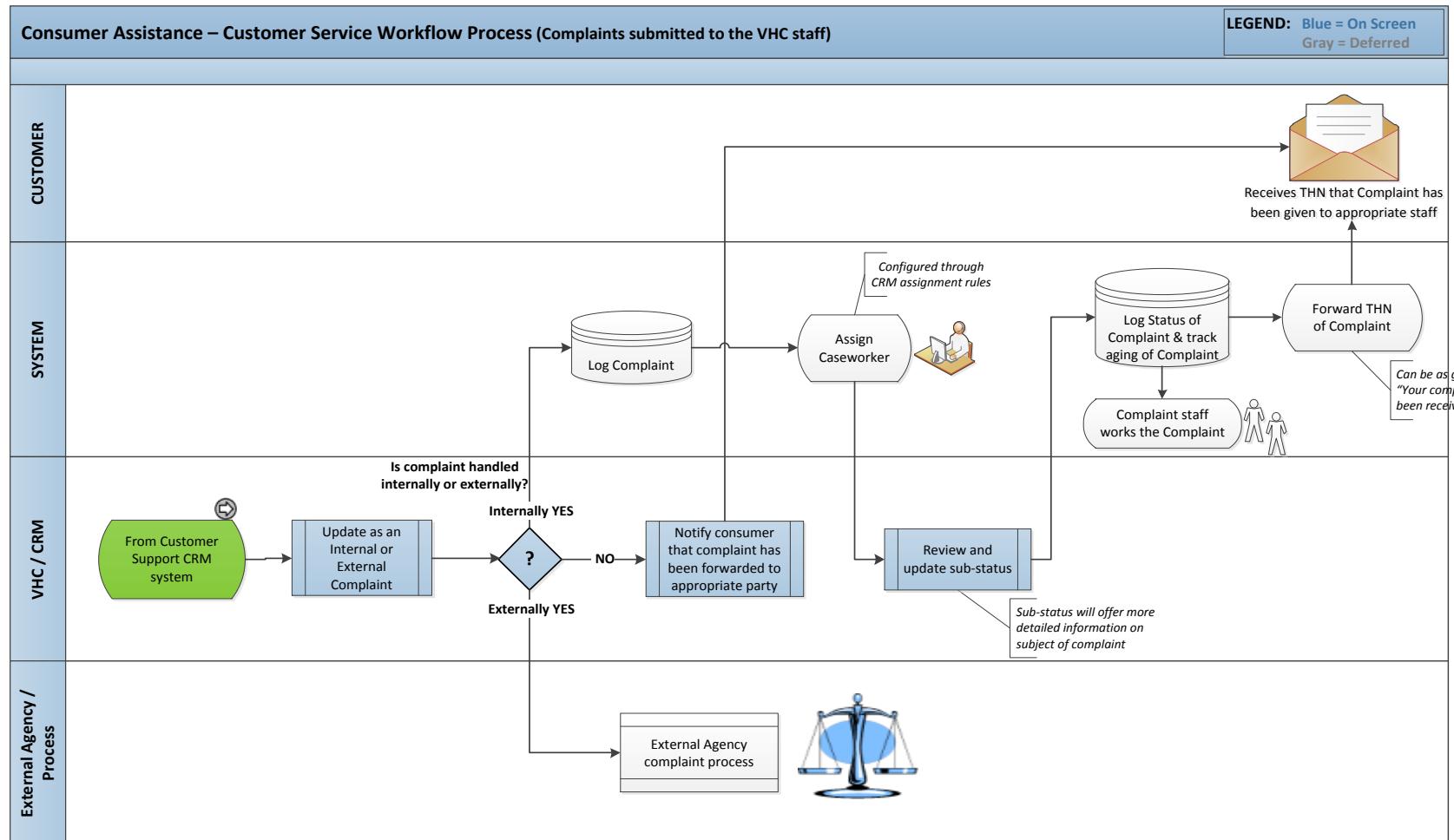
Exhibit 140: Complaint Workflow Process


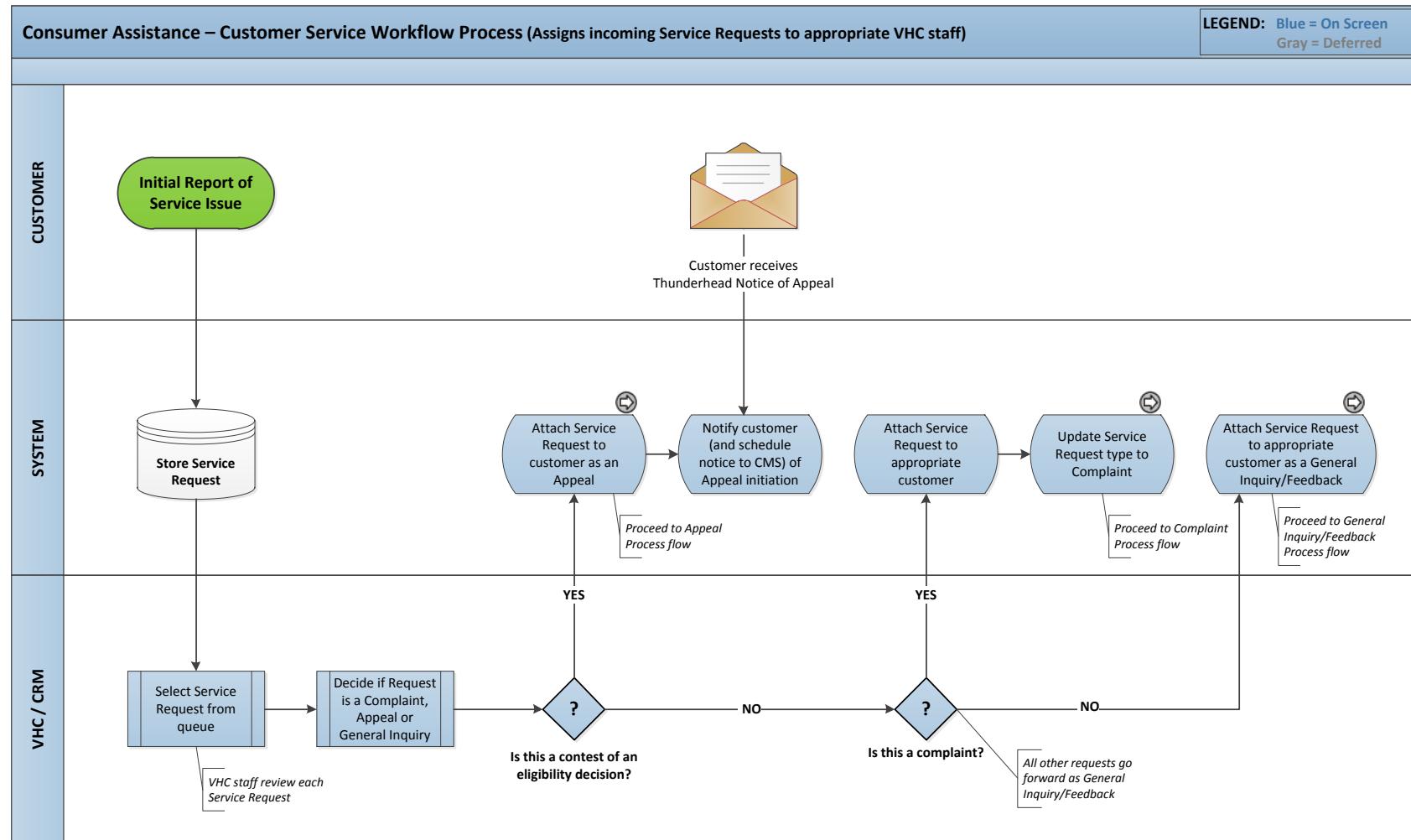
Exhibit 141: Assignment of Service Request Workflow Process


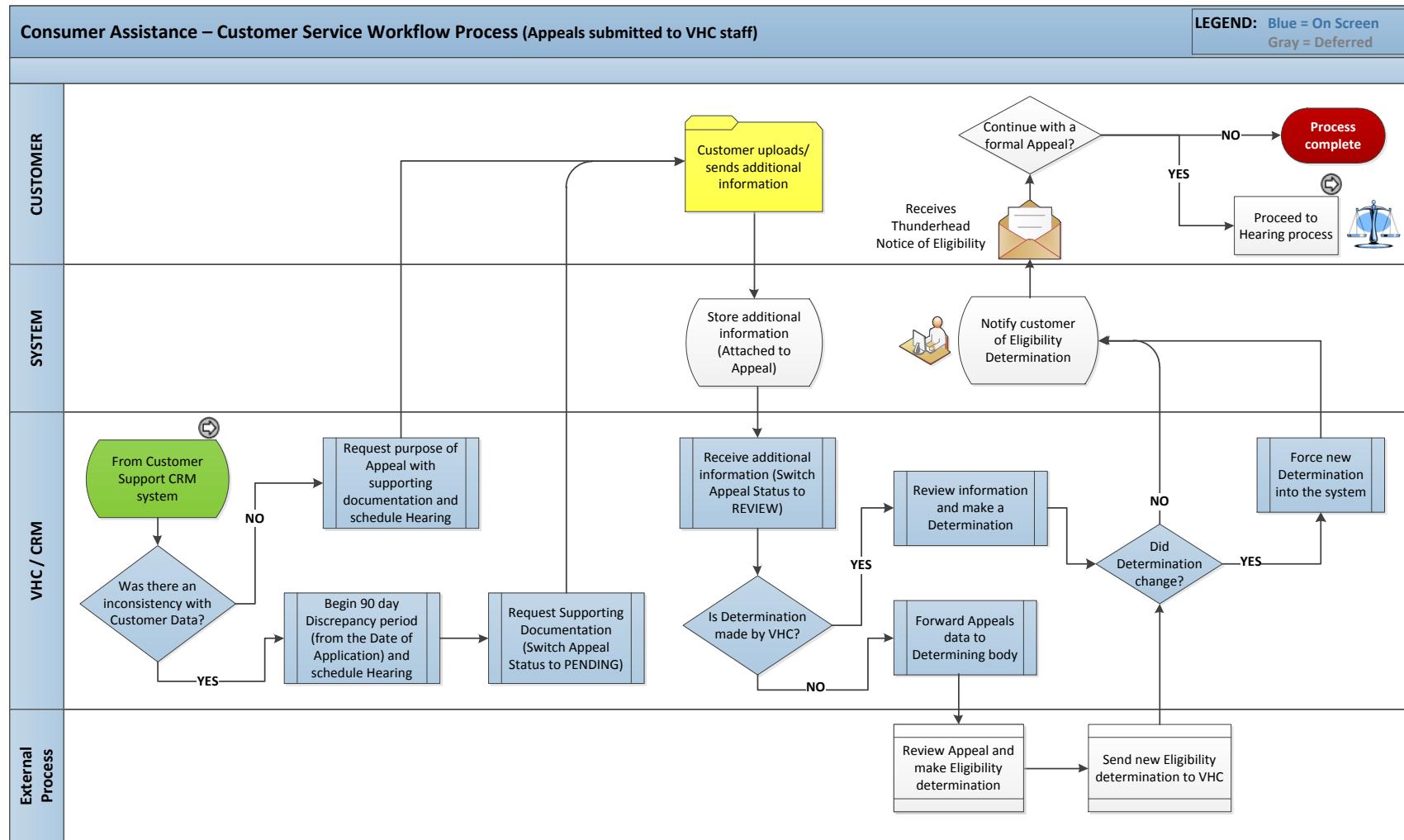
Exhibit 142: Appeal Service Request Workflow Process


Exhibit 143: Customer Service Workflow Process (Survey)

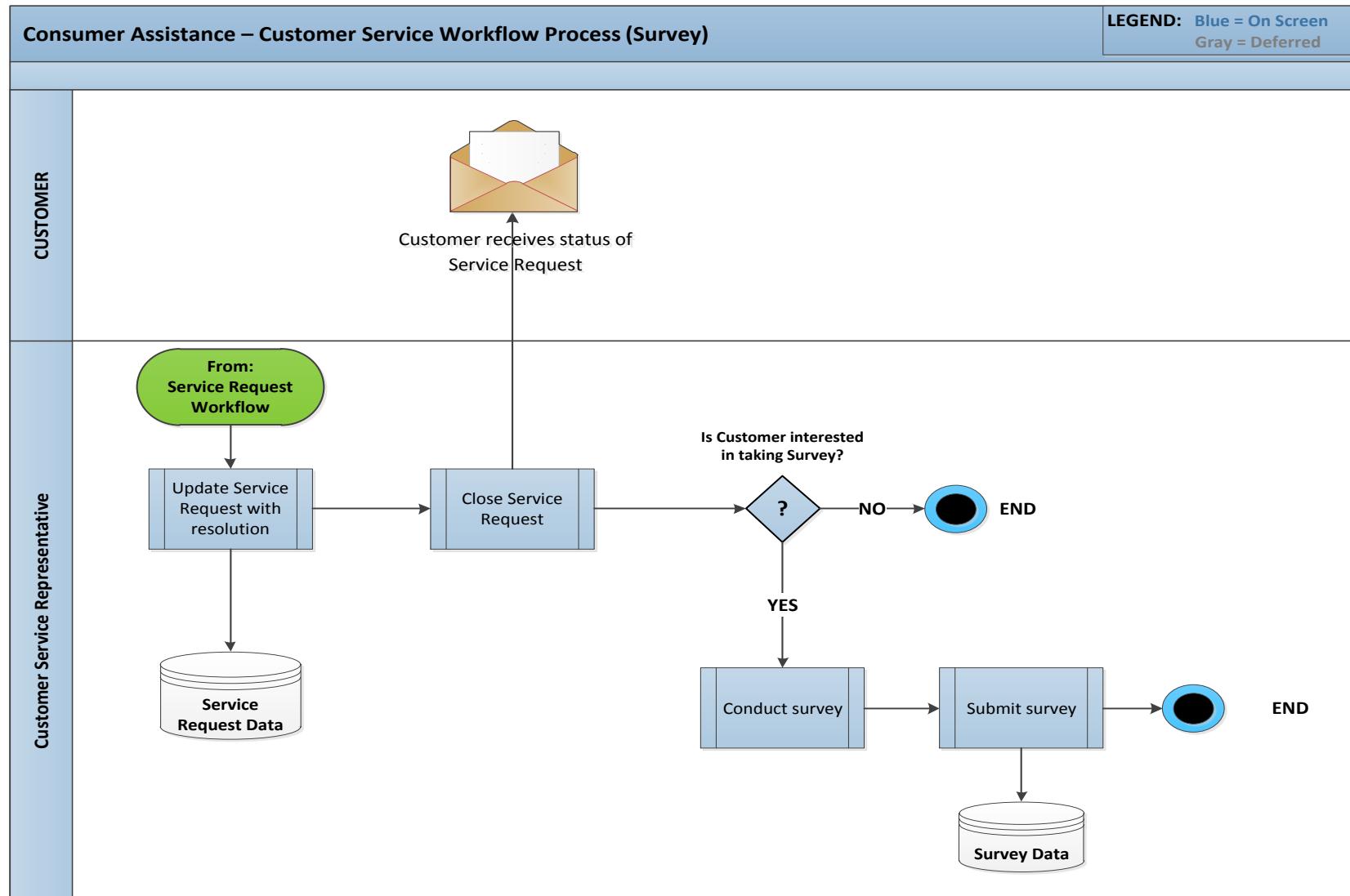
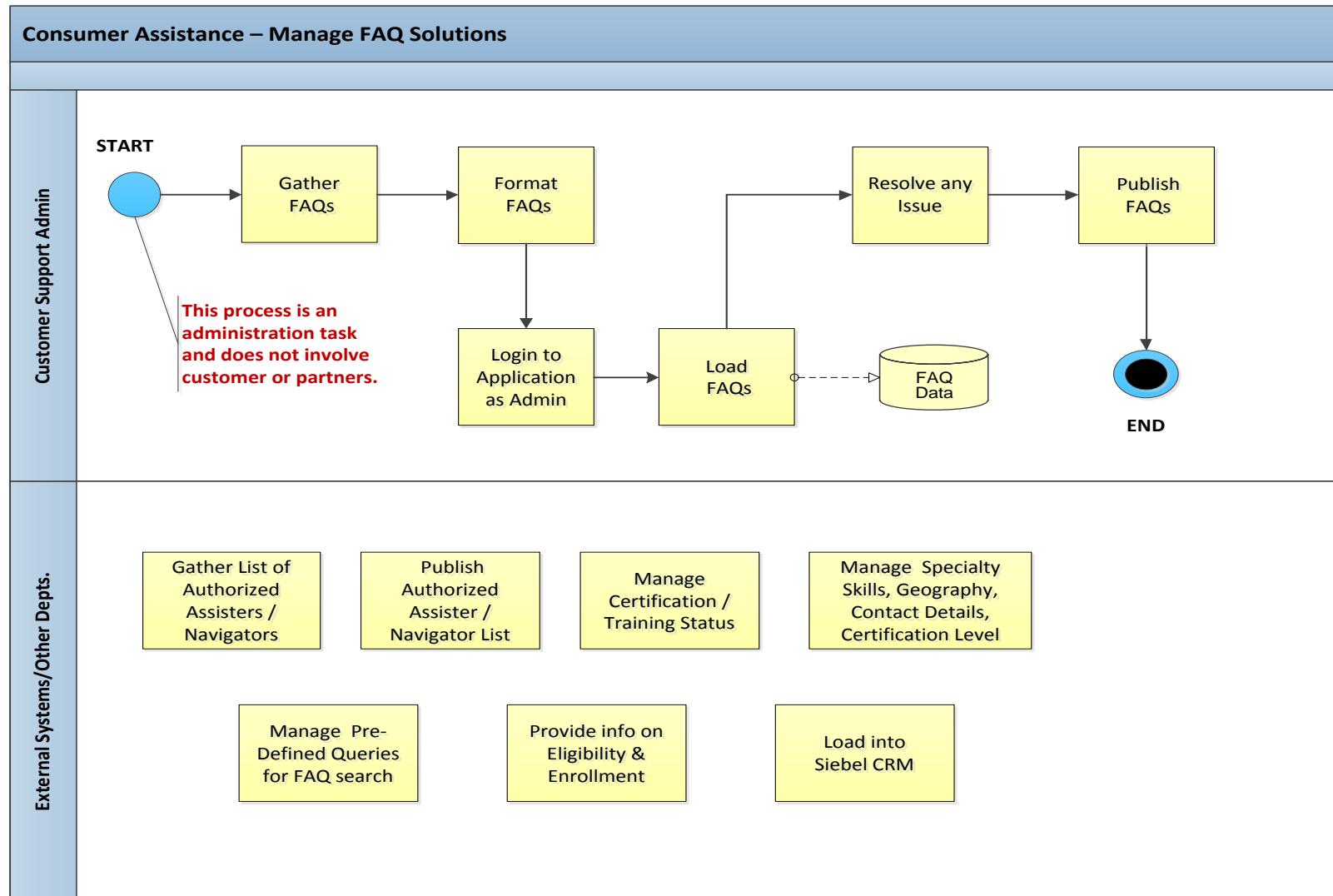


Exhibit 144: Manage FAQ Solutions



Requirements Addressed

The following Exhibits and sections include requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Modification of Cases

The system supports multiple methods of modification including through the normal Service Request (SR) method via workflow as well as a manual method in certain instances (e.g., the merge and unmerge of multiple individual cases). This access is strictly controlled by VHC policy utilizing Oracle Identity Manager (OIM) software. The system has full audit functions, including the ability to track changes by user and time (time stamped). VHC policy and OIM software are used to determine permissions and enforce them and an audit trail is retained for quality assurance purposes.

The rules engine must also reflect changes in enrollment, coverage, and tax credits as a result of a complaint, grievance, and appeal decision. The system supports this functionality through the utilization of Role Based Access. To prevent fraud, manual override ability will be given only to authorized individuals (i.e. supervisors must have the ability to manually override the system in order to reflect special circumstances).

Exhibit 145: Requirements Addressed - Modification of Records and Cases

Ref Code	Description	Status	Design/Solution Description	Open Action Items
CACM-002	Maintain a history of notices that have been sent to an individual, employer, Navigator, Broker.	Met		
CACM-018	Track changes made to an account in an auditable log.	Met		
CACM-020	Allow supervisors to enter the system through a customized portal to view and manage all the cases of the caseworkers under their jurisdiction.	Met		
CACM-021	Allow administrators to enter the system through a customized portal to view, manage, and if necessary correct case data if a computer systems error has occurred, as long as there is sufficient documentation noted in the record. Any system errors that are identified will be reviewed through a quality assurance process.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
CAG-010	The rules engine must reflect changes in enrollment, coverage, and tax credits as a result of a complaint, grievance, and appeal decision.	Met		

Quality Assurance Processes and Functions

Quality monitoring tools such as system flags, reporting metrics, transparency, role-based access and training certification are among only some of the measures in place to fulfill the self-structured requirements for quality assurance mandated for the VHC system.

Exhibit 146: Requirements Addressed - Quality Assurance Processes and Functions

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-136	Publish approved complaint data summaries on the VHC web portal for customer review, and to support transparency.	Met		
CAN-012	The system shall flag Management if Navigator has performance issues (e.g., missing deadlines, aging and outstanding customer inquiries, incomplete applications, enrollment, etc.).	Validated		The Navigator performance issues are under consideration by the SOV, metric tracking decisions to be made.
CAG-046	The system shall provide quality monitoring tools and processes to enable a continuous improvement cycle for the contact center staff that includes: Plug-in, Silent monitoring (including remote), Record and review to assess whether call was answered accurately, Voice and screen/multi-media monitoring, conferencing capabilities, ability to assess or rate an agent's quality and service using grading system and to store that data	Deferred		
CAN-005b	Flag Management if Navigator information is not up to date, or on probation for misconduct.	Deferred		
MO-021	The system shall allow authorized managers or supervisors to monitor active calls.	Deferred		

VHC Outreach and Education Initiatives

VHC's Outreach and Education initiatives as referred to in this section include customer interaction, including outreach events such as community education seminars, FAQ requests for information, issues involving Navigators, surveys and feedback.

On a monthly basis a range of data is received regarding Navigators, including enrollment data and contact history. Monthly reporting of interactions, outreach and education activities, and enrollments by type (i.e., where and who they enrolled) will be available with questions for 'just in time' monitoring. At a more granular level, a log on individuals and small businesses touched will also be available. Each quarter VHC staff will assess the cumulative monthly reports and provide feedback to each Navigator Organization. Some of the categories for the individual market that Navigators will track, either through the Portal or via self-reporting, will include: applicant's current health insurance status, application type, financial assistance type, engagement medium (phone, in-person), engagement length.

This Exhibit displays the VHC Outreach and Education Initiatives:

Exhibit 147: Requirements Addressed - VHC Outreach and Education Initiatives

Ref Code	Description	Status	Design/Solution Description	Open Action Items
CAG-019A	The system shall support outreach initiatives using letters, emails, phone calls	Met		
CAG-019B	The system shall support outreach initiatives using text messages.	Deferred		
CAG-024	The system shall log and store materials about outreach and education events across the state and community to inform the CRM and call center staff.	Met		
CAG-031	The system shall capture information on outreach efforts (e.g. how did you hear about us?).	Met		
CAN-002	Allow certified Navigators to enter the portal through a distinct login.	Met		
CAN-003	Allow Navigators to create an account with the VHC.	Met		
CAN-004	Require Navigators to provide credentials and certification information to establish an account.	Met		
CAN-006	Verify the information provided by the Navigator.	Met		
CAN-007	Create an account for the Navigator and assign a unique ID that will be maintained in the Navigator account.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
CAN-011	Provide a process to provide feedback or communication to the Navigators, in order for state agencies to communicate information	Validated		A meeting with the SOV is scheduled for the week of 5/27 to address communication methods with Navigators.

Workflow-Driven Processes and Functionality

Based on criteria determined by the VHC, the CRM will support the entering and tracking of inquiries, complaints, grievances, appeals and all data surrounding the case management. As part of the case management of workflow tracking, secure data transactions must be in place. The requirements shown below pertain to general overall case management.

Exhibit 148: Requirements Addressed - Workflow-Driven Processes & Functionality

Ref Code	Description	Status	Design/Solution Description	Open Action Items
CAG-014	The system shall monitor appeals/complaints due dates and alert staff or management of overdue status.	Met		
CAG-015	The system shall have the ability to be used by multiple agencies for appeals/complaints, including at a minimum the VHC, Medicaid, and the Department of Human Services.	Met		
CAG-033	The system shall have the ability to integrate voice and electronic transactions into a single workflow.	Deferred		
CAG-034	The system shall have the ability to oversee and manage contacts through work item routing and queuing, sending online alerts to staff or supervisors if issues are high priority or overdue.	Met		
MO-009	The system shall provide functionality that is capable of integrating with the integration tool to support billing, Enrollment/Eligibility, the secured access to the Case Management, and data integration with call management system.	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
MO-015	The system shall provide virtual hold and callback features when thresholds are met for wait time to allow consumers to hang up and receive an automated call when an agent is available.	Deferred		
MO-016	The system shall have the ability to provide consumers with estimated wait time to speak with an agent and messaging that will remind consumer of other self-service options, such as web site.	Deferred		
MO-019	The system will provide a robust scheduling and forecasting component that allows management to staff call center appropriately; data provided will show peak hours, days, months.	Deferred		
PM-125	Track and manage complaints for the VHC.	Met		
PM-126	Use a common, standard format for complaint data from all sources to facilitate merging complaint data for analysis.	Met		
PM-127	Allow complaint managers to classify complaints by attributes to support triaging complaints for action or referral	Met		
PM-128	Retain the source of the complaint (i.e. provider, issuer, Insurance Division, etc.) and the date received	Met		
PM-130	Track and manage activities related to researching and addressing complaints from complaint receipt to completion/resolution of a complaint including who took action, what the action was, relevant dates, communication tracking, contacts, etc.	Met		
PM-131	Provide the capability to auto-assign a complaint to a complaint worker or account manager based on information provided in the complaint	Met		
PM-132	Notify a complaint worker that a complaint has been assigned/routed to that person	Met		

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PM-133	Allow reassignment of a complaint to a new complaint worker	Met		
PM-124	Provide the ability to accept electronic Issuer/Plan complaint data in secure manner, from VHC Issuers on a periodic basis. Complaint data can include: Issuer, Plan Involved, Number and Type of Complaint, Complaint rates, Complaint response time	Deferred	Newly deferred – No electronic info is currently received from Issuers (per Margot 5-24-13)	
CAG-011 B [NEW SPLIT]	The system shall allow appeals/complaints staff to manage cases within the system using options which include tickler files.	Deferred	Newly split item to account for validation of item without tickler file functionality	

Key Assumptions and Considerations

Assumptions

- The Call/Contact Center must be operational
- The Call Center will be able to assign and categorize requests
- The Call Center staff will have the ability to attach documents to case

Functional Considerations

The following functional items considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins: a login for the Portal with the role of individual and a login with the appropriate role in Siebel.
 - The individual must choose a role of Individual, Employee, Employer, Broker or Navigator in order to establish an account for the VHC Portal.
- Note: Additional roles will be discussed with SOV during week of 5/28/13.*
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.
 - Views must be defined based on what is currently available; General Triage for Inquiries, Appeals, General and Complaints, as well as supervisory for Triage and Supervisory for others.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate
- Oracle Identity Management Suite
- Siebel Public Sector CRM
- Web Portal for Customers
- OneGate Configuration (by Siebel)

- Thunderhead NOW Noticing
- Benaissance Premium Processing

New Testing considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator.
- Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test conditions for the portal login.

Case Management Administration Design Details

Interfaces and Data Elements

Not applicable.

Data

Not applicable.

Reports and Notices Generated

- No Notices will be generated for Portal Logins
- Activity log information will be able to be extracted from Oracle Identity Manager on an as need basis.

User Interface (Existing Screen)

Not applicable.

Business Rules

- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/lose employment.

References

- The D-14 Functional Requirements Document (previously named F-14 Requirements Traceability Matrix (RTM)).
- OneGate Individuals and Families Portal Experience User Guide, ver. 3.1
- OneGate Brokers and Navigators Portal Experience User Guide, ver. 3.2.1
- OneGate Case Management Configuration Guide, ver. 3.2

21.7 Premium Processing and Financial Management

21.7.1 Portal Payments and Payment Account Setup FSD

Attendee/Contributor(s) List

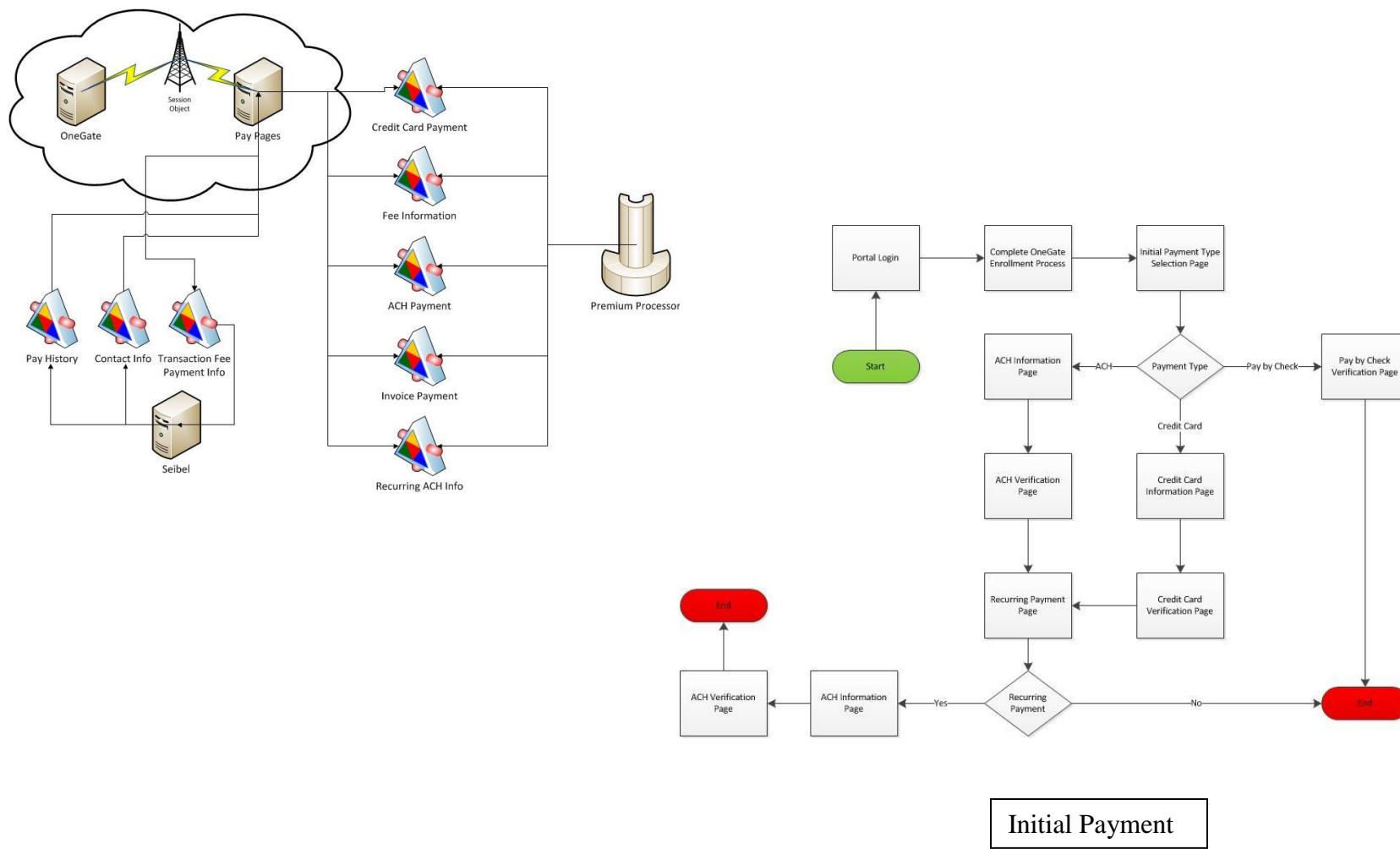
Name	Organization	Email
James Sikes	CGI	
Steve Cudly, Liz Kerrigan	Benaissance	
Get names from review session	SoV	

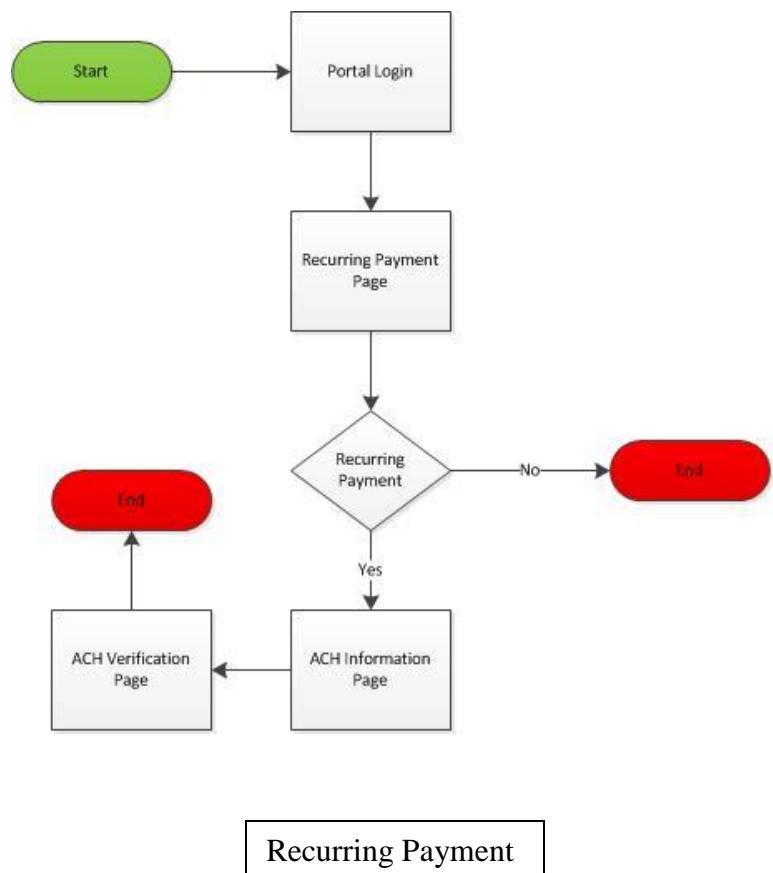
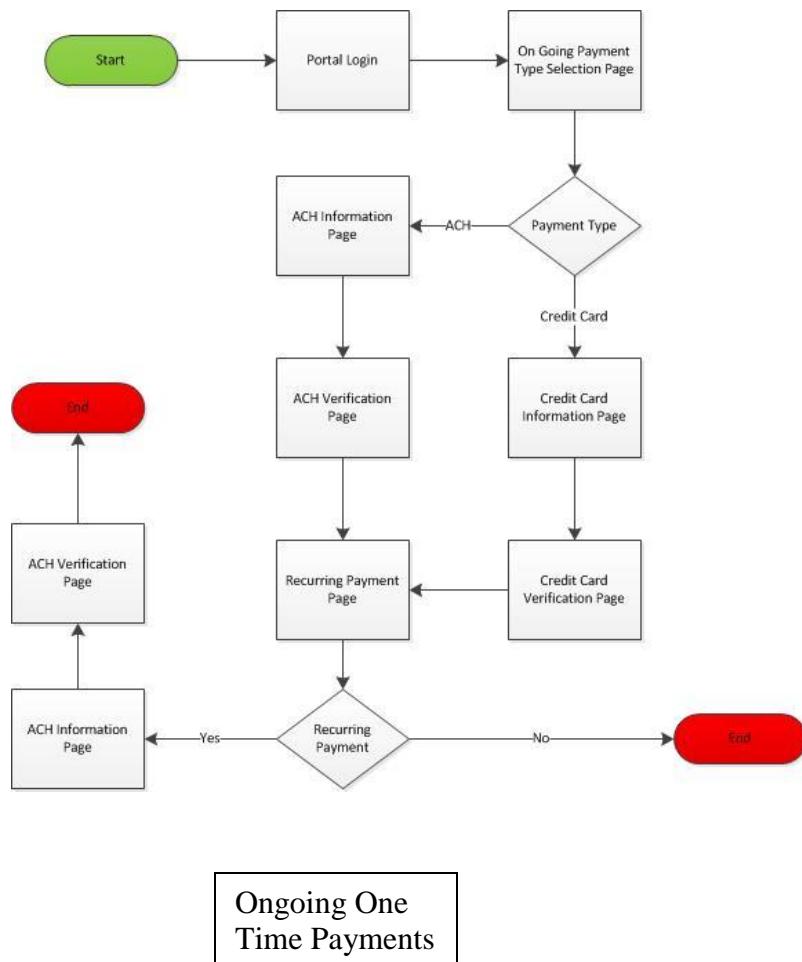
Portal Payments and Payment Account Setup Process

Business Process Diagram

The Portal Payments Process describes the system functionality needed, for an individual and/or small business that chooses to enroll with VHC, in order to select a method for making their premium payments or making a direct payment online to satisfy their premium.

The Account Setup process describes the system functionality needed, for an individual and or small business that chooses to enroll with VHC and how they will set up their accounts in order to make and or change ongoing payments.

Exhibit 149: Portal Payments and Payment Account Business Process Flow




Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 150: Portal Payments Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP-002	Provide an electronic method for use by each family unit, navigator/broker/in-person assistor or customer service agent to set up a premium payment account.	Met	New Screen	
PPRFP-033	Provide an electronic method for use by each small business, navigator/broker/in-person assistor or customer service agent to set up a premium payment account.	Met	New Screen	
PPRFP-003	Enable each family unit to choose the manner by which it will receive notifications (e.g., invoices, correspondence).	Met	New Screen	
PPRFP-034	Enable each small business to choose the manner (e.g., electronic, paper) by which it will receive notifications (e.g., invoices, correspondence).	Met	New Screen	
New-022	Transmit daily Individual enrollment updates from the Exchange, including eligibility and Federal APTC and Federal CSR, State Premium Subsidy and Federal CSR amounts to the Premium Processor.	Met	Backend process	
FM-001	Generate daily transactional 834 transaction file in a HIPAA compliant format on all individuals enrollment updates for the Exchange	Met	Backend process See ICD and Companion Guides	
New-023	Generate daily transactional file on all individual enrollment updates for the Exchange including State CSR amounts	Met	Backend process	
New-024	Transmit daily transactional file on all individuals enrolled in QHPs including State CSR amounts to Issuers	Met	Backend process	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-002	Transmit daily transactional 834 transaction file in a HIPAA compliant format of individuals enrolled in QHPs to CMS	Met	Backend process	
New-021	Transmit daily transactional 834 transaction file in a HIPAA compliant format of individuals enrolled in QHPs to CMS generate Individual enrollment updates from the Exchange, including Federal APTC and CSR and State Premium Subsidy and State CSR amounts to the Premium Processor.	Met	Backend process Backend process See ICD and Companion Guides	
New-100	Send premium payment reports via EDI 820 transactions to the Issuers. - Individual	Met	Backend process Backend process See ICD and Companion Guides	
New-101	Send premium payment reports via EDI 820 transactions to the Issuers. – Small Business	Met	Backend process Backend process See ICD and Companion Guides	

Key Assumptions and Considerations

Assumptions

The individual or small business has created an account on VHC Individual and Families or Small Business Portal.

The individual or small business will have a valid billing address or mailing address (also available through a Navigator or Authorized User) in order to establish the method of payment on the VHC.

Functional Considerations

The following functional items should be considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the Portal with the role of individual and a login with the appropriate role in Siebel.
- The individual must choose one of 5 roles – Individual, Employee, Employer, Navigator and Broker (Additional roles currently under review and analysis include: Certified Counselor (Assister), Authorized User, and Alternate Reporter)
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Portal
- Oracle Identity Management Suite
- Renaissance - Premium Processor

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as # TBD roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login.
- The system must have the connection to Benaissance to allow for ACH, credit/debit card authentication in order to process electronic online payment methods.

Portal Payment Design Details

Interfaces and Data Elements

Connection to Benaissance system.

Data

New data elements to be collected via Payment Screens

Data Elements are outlined in the *Benaissance API – Service Interface Specifications* document.

Those exposed in the payment workflow screens, that are not captured in the Portal include:

Customer/Subscriber

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
CustomerID	xsd:int		Yes	The database ID provided by Benaissance that the operation will be performed against.	
EntityID	xsd:int		Yes	Subscriber ID for Employees and Individuals. Sponsor ID for Employers.	
EntityType	xsd:string		Yes	INDIVIDUAL EMPLOYEE EMPLOYER	

PaymentPreference

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
Preference	xsd:string	35	Yes	INDIVIDUAL RECURACH USPO One Time CARD Payment UNDEFINED EMPLOYEE RECURACH USPO UNDEFINED EMPLOYER RECURACH USPO One Time CARD Payment UNDEFINED	

BillingPreference

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
Preference	xsd:string	35	Yes	INDIVIDUAL NOTICE EMAIL NOBILL EMPLOYEE NOTICE EMAIL NOBILL EMPLOYER USPO EMAIL	

Single ACH Transaction or RecurringACHSetting

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
BankName	xsd:string	23			
BankRoutingNumber	xsd:string	9	Yes		
AccountName	xsd:string	22			

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
AccountNumber	xsd:string	17	Yes		
AccountType	xsd:string	8	Yes	CHECKING SAVINGS	

CardSetting

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
CardNetwork	xsd:string		Yes	VISA MASTERCARD	
CardNumber	xsd:string	16	Yes		
CVV2CVC2	xsd:string	5	Yes		
ExpirationDateMonth	xsd:int		Yes		
ExpirationDateYear	xsd:int		Yes		
BillingName	xsd:string	50	Yes		
BillingStreet	xsd:string	50	Yes		
BillingCity	xsd:string	50	Yes		

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
BillingState	xsd:string	2	Yes	AA AE AK AL AP AR AS AZ CA CO CT DC DE FL FM GA GU HI IA ID IL IN KS KY LA MA MD ME MH MI MN MO MP MS MT NC ND NE NH NJ NM NV NY OH OK OR PA PR PW RI SC	

Field	Data Type	Max Size	Required	Valid Values	Portal / Siebel Map
BillingZip	xsd:string	9	Yes		

Reports and Notices Generated

- No Notices will be generated for Portal Logins
- Activity log information will be able to be extracted from Oracle Identity Manager on an as-needed basis.

User Interface (New Screens)

Work Flow/Scenarios

Use case general flow:

Decides method to pay -> Enters payment information -> Confirms payment -> Informed of payment complete

Credit/Debit Card		
Scenario	Description	Data Txns Achieved
First Payment	All transactions successful	
Ongoing Payments	All transactions successful	
Alternate Flow 1	Transaction not accepted – user backs out to try another method non-credit/debit	
Alternate Flow 2	Transaction not accepted – user backs out to try a different card	
Alternate Flow 3	Transaction not accepted – 3rd attempt using same card – user account is locked	
Alternate Flow 4	Transaction not accepted – X attempts using different cards – user account is locked	
Alternate Flow 5	Transaction not accepted – user closes window	
Alternate Flow 6	Transaction not accepted – user times out	

ACH Draft

Scenario	Description	Data Txns Achieved
First Payment	All transactions successful	
Ongoing Payments	All transactions successful	
Alternate Flow 1	Transaction not accepted - NSF	
Alternate Flow 2	Transaction not accepted – Other	
Alternate Flow 3	Transaction not accepted – 3rd attempt using same card – user account is locked	
Alternate Flow 4	Transaction not accepted – X attempts using different cards – user account is locked	

Alternate Flow 5	Transaction not accepted – user closes window	
Alternate Flow 6	Transaction not accepted – user times out	

Pay by Check

Scenario	Description	Data Txns Achieved
First Payment	All transactions successful via USPS	
Ongoing Payments	All transactions successful via USPS	
Alternate Flow 1	Transaction not accepted – Other	
Alternate Flow 2	Transaction not accepted – 3rd attempt using address – user account is locked	
Alternate Flow 3	Transaction not accepted – X attempts using different addresses – user account is locked	
Alternate Flow 4	Transaction not accepted – user closes window	
Alternate Flow 5	Transaction not accepted – user times out	
Alternate Flow 6	Mailing transaction not successful – Not deliverable – (e.g. UAA, RTS, NO)	
Alternate Flow 7	Walkin Cash/Check at local QHP or State Agency	
Alternate Flow 8	Cash received at Premium Processor	** Additional flows for payments received outlined in: Premium Processor Individual Premium Processor Small Business
Alternate Flow 9	Check received not identifiable	** Additional flows for payments received outlined in: Premium Processor Individual Premium Processor Small Business
Alternate Flow 10	NSF Check	See Policy Section
Alternate Flow 11	Check received made out to QHP	** Additional flows for payments received outlined in: Premium Processor Individual Premium Processor Small Business

Mixed Partial Payments – Same and different people/accounts

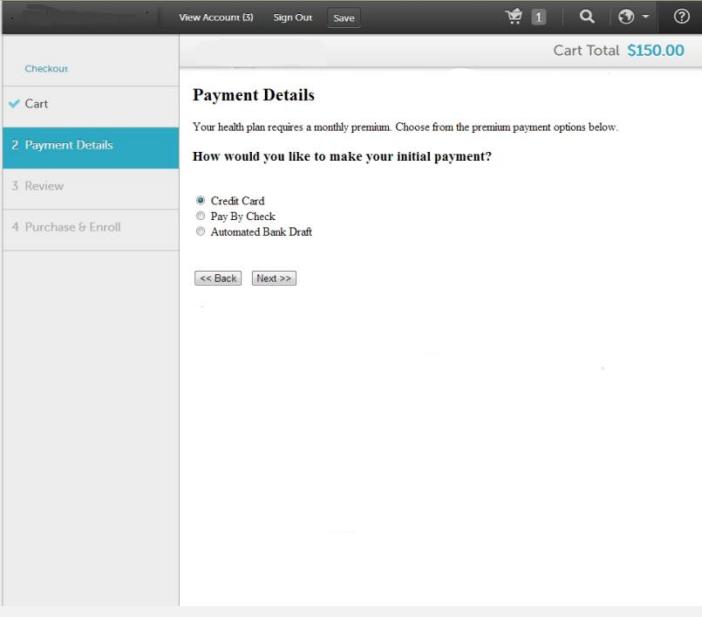
Scenario	Description	Data Txns Achieved
Ongoing Partial Payments – same subscriber id	Multiple checks same bank account	
Alternate Flow 1	Multiple checks different bank account	
Alternate Flow 2	Multiple checks – credit/debit payment same bank account	
Alternate Flow 3	Multiple checks – money orders – credit/debit payment different bank account	
Alternate Flow 4	Multiple checks – money orders – credit/debit payment different bank account – attempt at walk-in cash	

Ongoing Partial Payments - not the subscriber id	Multiple checks same bank account	
Alternate Flow 1	Multiple checks different bank account	
Alternate Flow 2	Multiple checks – credit/debit payment same bank account	
Alternate Flow 3	Multiple checks – money orders – credit/debit payment different bank account	
Alternate Flow 4	Multiple checks – money orders – credit/debit payment different bank account – attempt at walk-in cash	
Ongoing Partial Payments – multiple different people paying		
Alternate Flow 1	Multiple checks different bank account	
Alternate Flow 2	Multiple checks – credit/debit payment same bank account	
Alternate Flow 3	Multiple checks – money orders – credit/debit payment different bank account	
Alternate Flow 4	Multiple checks – money orders – credit/debit payment different bank account – attempt at walk-in cash	

** Additional flows for payments received outlined in:

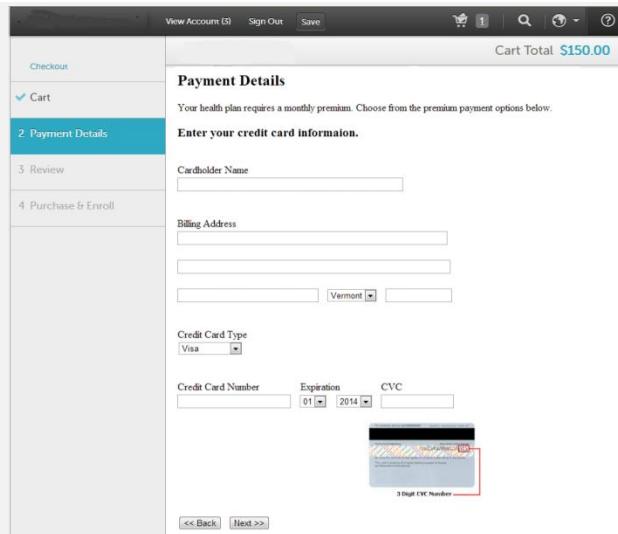
- Premium Processor Individual
- Premium Processor Small Business

Workflow 1 – Payment during Initial Enrollment in VHC Portal

Step 1 – Payment Method Screen	Notes – Business Rules
 <p>Likeness ONLY</p>	<p>Data on this screen is used to: Drive subsequent screens</p> <p>Allowed</p> <ul style="list-style-type: none"> ▪ One Choice <p>If end user chooses not to continue and logs out of the system the following will be in place:</p> <p>At this point the user is enrolled and recognized by the system.</p> <p>Premium Processor has received pre-enrollment data set for the purposes of recognizing the subscriber and or small business in the Premium Processing data store for the purposes of billing.</p> <p>However the only information at this point for billing as a default would be: Household Address for mailing an invoice</p>

Step 2 – Payment Details

Screen – Payment Details – 3 Options



View Account (S) Sign Out Save Cart Total \$150.00

Payment Details

Your health plan requires a monthly premium. Choose from the premium payment options below.

Enter your credit card information.

Cardholder Name:

Billing Address:

 Vermont

Credit Card Type: Visa

Credit Card Number: Expiration: 01 2014 CVC:



<< Back Next >>

Likeness ONLY

Notes – Business Rules

Choice - Credit/Debit Card

Data on this screen is passed to Bennaissance Premium Processor to:

Validate Card holder and funds available

Allowed

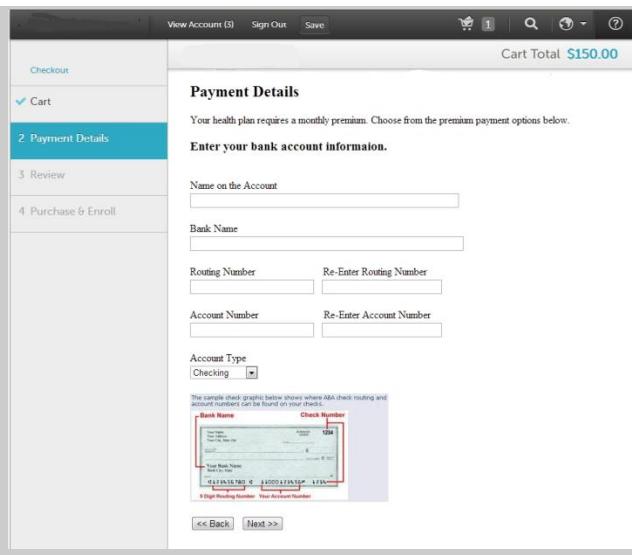
Use of another persons' Card

Allowed Amounts – Amount pre-calculated

- Payment must be in full for initial payment
- Payments for balance of a single month currently due
- Payment for full restoration (e.g. make whole) of all months currently due

If user chooses to exit at this point the billing as a default would be:

Household Address for mailing an invoice



View Account (S) Sign Out Save Cart Total \$150.00

Payment Details

Your health plan requires a monthly premium. Choose from the premium payment options below.

Enter your bank account information.

Name on the Account:

Bank Name:

Routing Number: Re-Enter Routing Number:

Account Number: Re-Enter Account Number:

Account Type: Checking

The sample check graphic below shows where ABA-check routing and account numbers can be found on your checks.



<< Back Next >>

Likeness ONLY

Choice - Automated Bank Draft

Data on this screen is passed to Bennaissance Premium Processor to:

Validate Bank Account holder and funds available

Allowed

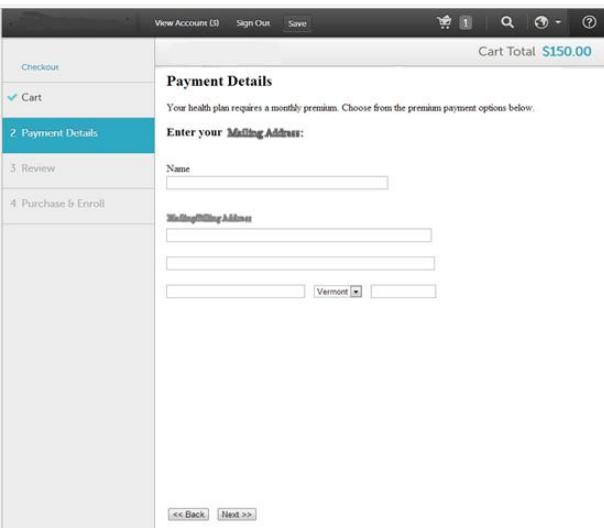
Use of another persons' Account

Allowed Amounts – Amount pre-calculated

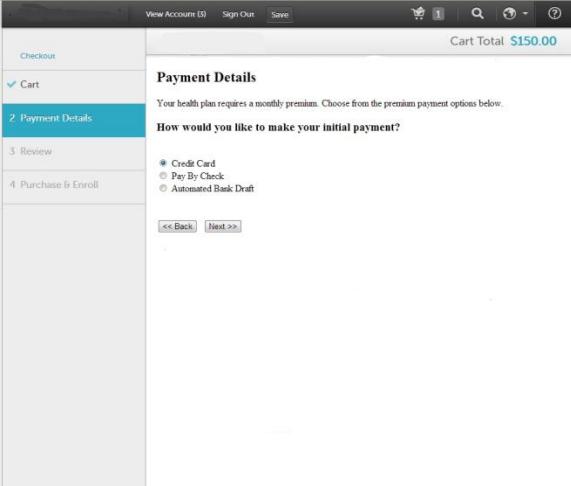
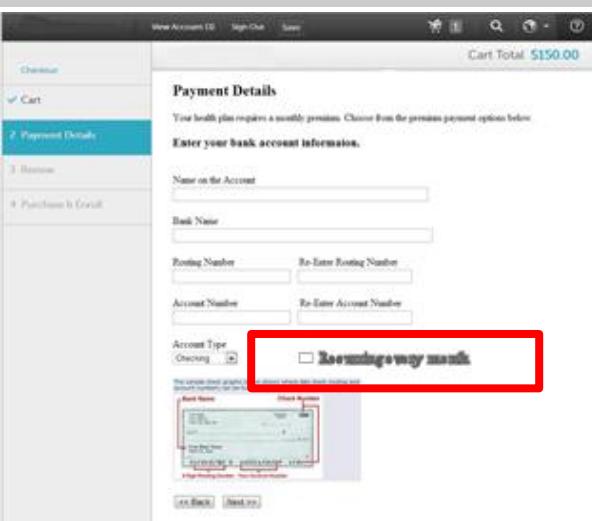
- Payment must be in full for initial payment
- Payments for balance of a single month currently due
- Payment for full restoration (e.g. make whole) of all months currently due

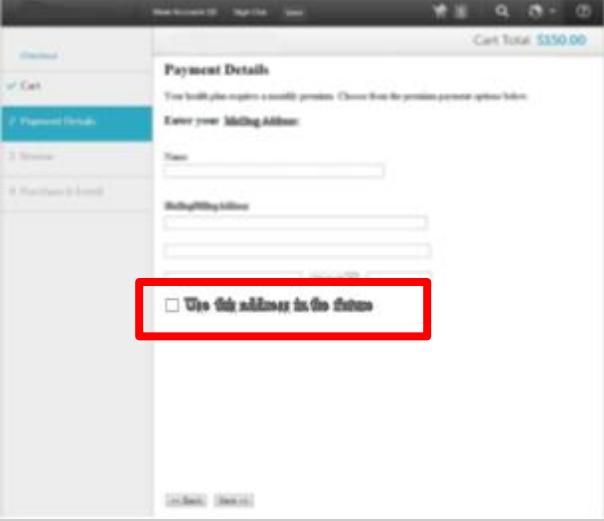
If user chooses to exit at this point the billing as a default would be:

Household Address for mailing an invoice

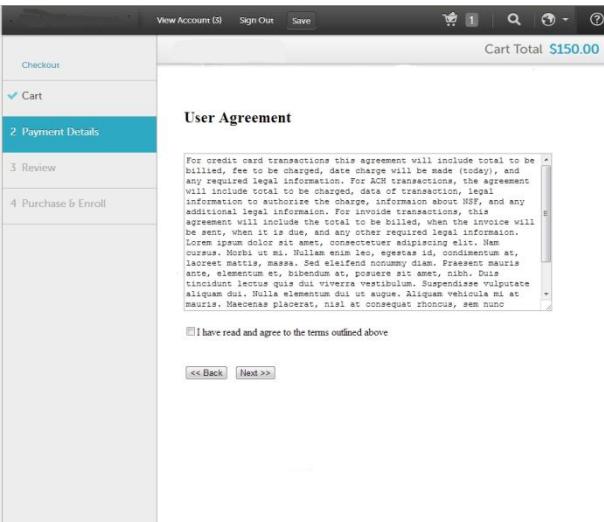
Step 2 – Payment Details Screen – Payment Details – 3 Options	Notes – Business Rules
 <p style="text-align: center;">Likeness ONLY</p>	<p>Choice - Check Data on this screen is passed to Benissance Premium Processor to: Send Invoice via USPS or email based on user preference (email preference taken from Portal Enrollment preferences)</p> <p>Allowed Use of another persons' Account Allowed Amounts– Amount pre-calculated</p> <ul style="list-style-type: none"> ▪ Any amount partial – full – overpayment ▪ Note: Overpayments held in custodial account until applied to next month premium or subscriber termination <p>If user chooses to exit at this point the billing as a default would be: Household Address for mailing an invoice</p>

Workflow 2 – Ongoing Payments

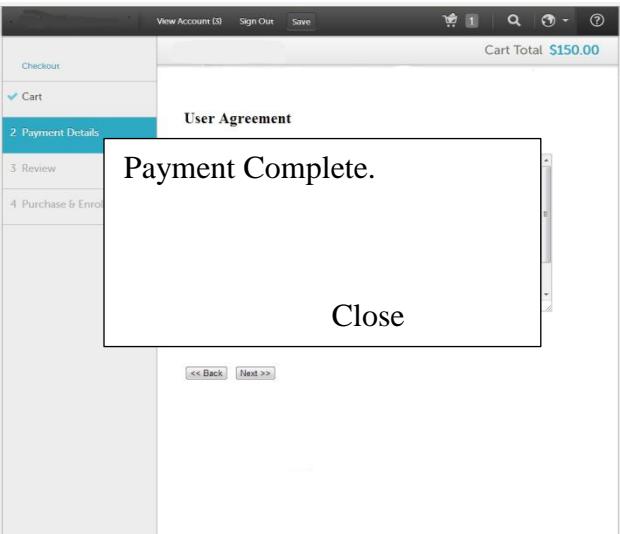
Step 2 Alternate – Ongoing Payments Screen – Ongoing Payment Details – Single or Recurring	Notes – Business Rules
 <p>Likeness ONLY</p>	<p>Data on this screen is used to: Drive subsequent screens</p> <p>Allowed Choices</p> <ul style="list-style-type: none"> ▪ Credit/Debit (see above Credit/Debit Screen) ▪ Pay by Check ▪ Automated Bank Draft (allows for recurring setup)
 <p>Likeness ONLY</p>	<p>Choice - Pay by Credit/Debit Card (see initial payment section)</p> <p>Choice - Automated Bank Draft</p> <p>Data on this screen is passed to Bennaissance Premium Processor to: Validate Bank Account holder and funds available</p> <p>Allowed</p> <p>Use of another persons' Account</p> <p>Allowed Amounts – Amount pre-calculated</p> <ul style="list-style-type: none"> ▪ Payment must be in full for initial payment ▪ Payments for balance of a single month currently due ▪ Payment for full restoration (e.g. make whole) of all months currently due ▪ Recurring Setup for one months' premium amount <p>If user chooses to exit at this point the billing as a default would be: Household Address for mailing an invoice</p>

<p>Step 2 Alternate – Ongoing Payments</p> <p>Screen –</p> <p>Ongoing Payment Details – Single or Recurring</p>  <p>Likeness ONLY</p>	<p>Notes – Business Rules</p> <p>Choice - Check Verify Mailing Address Data on this screen is pulled from users account on file (if mailing/billing address stored) or passed new to Bennaissance and stored in Siebel? <ul style="list-style-type: none"> ▪ Option to use this address in the future Send Invoice via USPS or email based on user preference (email preference taken from Portal Enrollment preferences)</p> <p>Allowed Use of another persons' Account Allowed Amounts– Amount pre-calculated <ul style="list-style-type: none"> ▪ Any amount partial – full – overpayment ▪ Note: Overpayments held in custodial account until applied to next month premium or subscriber termination <p>If user chooses to exit at this point the billing as a default would be: Household Address for mailing an invoice</p> </p>
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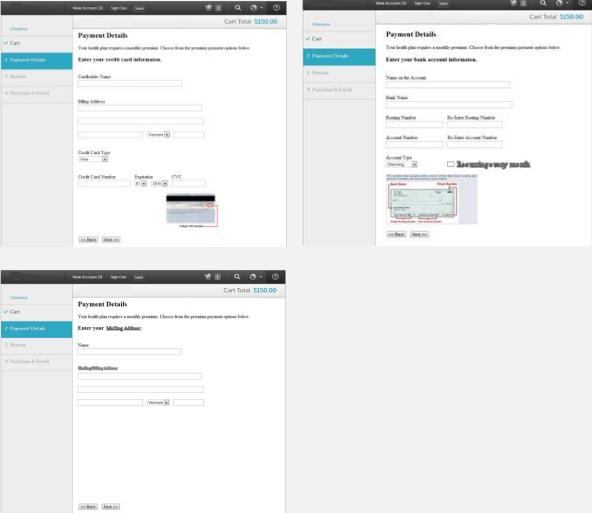
Legal Confirmation/Acknowledgment of Action taken

<p>Step 3 – Acknowledge</p> <p>Screen</p>  <p>Likeness ONLY</p>	<p>Notes – Business Rules</p> <p>Where does this screen fall in the flow of backend processing?</p> <p>For Credit/Debit card has to be before funds are pulled.</p> <p>For ACH can be after</p> <p>For Check – don't believe this is needed</p>
--	--

End User Close the loop feedback – Process complete

Step 4 – Confirmation	Notes – Business Rules
<p>Screen</p>  <p>Likeness ONLY</p>	<p>User receives a confirmation message Content TBD User returned to Portal</p>

Error Conditions

Screen	Notes – Business Rules
<p>Screen</p>  <p>Likenesses ONLY</p>	<p>Error Conditions General:</p> <ul style="list-style-type: none"> ▪ Invalid data formats – Field level <p>Error Conditions System:</p> <ul style="list-style-type: none"> ▪ No connection to Benaisance ▪ No connection to banking verification <p>Choice – Automated Bank Draft</p> <ul style="list-style-type: none"> ▪ Insufficient Funds – will not be established at this point – workflow needed for call center and or subscriber contact <p>Choice - Check</p> <ul style="list-style-type: none"> ▪ Not applicable <p>Choice - Credit/Debit Card</p> <ul style="list-style-type: none"> ▪ Insufficient Funds – immediate response from system. User needs to pick another method of payment

Business Rules

- See above for rules for screen design
- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/lose employment.

Policy Decisions

Exhibit 151: Policy Decisions

Date	Item	Policy Decision
05.18.2013	NSF fees	SOV is not imposing NSF fees at this time
05.18.2013	Fees for Debit/Credit Payment	Fees will be assessed to the credit card holder and will be accounted for separate from premium payment
05.18.2013	When using online method of payment ACH single, ACH Recurring, Credit/Debit Card	Payment amount must fulfill the total premium due. Cannot make a partial payment towards an amount due using these payment vehicles

Operational Decisions – HBE - Premium Processor

Exhibit 152: Operational Decisions

Date as of	Item	Operational Decision
05.22.2013	Credit/Debit Card	Credit/Debit card payment must satisfy the full premium due
05.22.2013	ACH	ACH payment must satisfy the full premium due
05.22.2013	Multiple Credit/Debit Cards	Multiple Credit/Debit cards will not be accepted as partial payments towards a premium
05.22.2013	Credit/Debit Card "fees"	Any fees/surcharge is assessed to the card holder and is not applied to the premium amount

References

- D-14 Functional Requirements
- OneGate Individuals and Families Portal Experience User Guide
- OneGate Brokers and Navigators Portal Experience User Guide
- Renaissance Service Interface Specifications
- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines

21.7.2 Premium Processing FSD

Attendee/Contributor(s) List

Name	Organization	Email
Liz Kerrigan	Benaissance	Liz.kerrigan@benaissance.com

Benaissance will perform Vermont Health Connect (VHC) accounting functions as the Marketplace Premium Processor. In this role Benaissance will capture and maintain records related to Premiums due, Invoices, Payments, Payment Voids, Payment to Premium Allocations, Refunds, Carrier Remittances, Carrier Adjustments, State Remittance, State Adjustments, State Premium Assistance, Federal Subsidies (APTC), State Cost Sharing, CSR payments to Carriers and APTC payments to Carriers.

On a predetermined remittance cycle (frequency), Benaissance will perform remittance to the State and Carriers. When this process is complete the Carriers receive premium dollars for all Individuals and Employers enrolled and receiving coverage through QHPs issued by them. These premium dollars are net of any APTC dollars already paid to Carriers by CMS.

Premium Processor Process

Business Process Diagram

The *Individual Premium Processing* functional area is used by VHC to aggregate premium data for family units, generate invoicing net of subsidies, receive and process premiums, and remit premiums to Carriers. The premium processor will provide data to the VHC to support additional Financial Management operations such as reporting, reconciliation, and discrepancy management. Notices that are specific to premium and payment data will be generated and sent directly from the Premium Processor. Through data transfers VHC users will have access to all premium information and communications.

The *Small Business Premium Processing* functional area is used by VHC to aggregate premium data for employers, generate invoicing, receive and process premiums, and remit premiums to Carriers. The premium processor will provide data to VHC to support additional Financial Management operations such as reporting, reconciliation, and discrepancy management. Notices that are specific to premium and payment data will be generated and sent directly from the Premium Processor. Through data transfers VHC users will have access to all premium information and communications.

The *Issuer Premium Processing* functional area is used by VHC to communicate premium payment data and remit premium payments to Carriers. Carriers for the Vermont Health Connect include Qualified Health Plan (QHP) Carriers as well as the State of Vermont for state based plans. The premium processor will provide data to VHC to support resolution of payment discrepancies, communication of premium data, and reconciliation of premiums. Premium remittance will be initiated directly from the premium processor to Carriers.

Premium Processor diagrams of Financial Management business processes will include the following:

- Premium Processing – Individual
 - ▶ Premium Invoicing
 - ▶ Premium Collection
 - ▶ Premium Remittance
 - ▶ Premium Refunds
 - ▶ Premium Discrepancy Resolution
 - ▶ APTC and CSR Reconciliation

- Premium Processing – Small Business
 - ▶ Premium Invoicing
 - ▶ Premium Collection
 - ▶ Premium Remittance
 - ▶ Premium Refunds
 - ▶ Premium Discrepancy Resolution
- Premium Processing – Carrier
 - ▶ Premium Aggregation
 - ▶ Remittance Process
 - ▶ Discrepancy Management
- Premium Processing – State of Vermont
 - ▶ State Premium Assistance
 - ▶ State Cost Sharing Reductions

Premium Processing - Individual

Premium Aggregation is the process by which multiple health insurance plan premiums are aggregated to one premium amount due. The Premium Processor will aggregate all premiums due onto one invoice for individual subscribers. This may include multiple plans per family unit and also may include state plans as well as QHPs. The process includes creating an invoice net of subsidies, receiving and processing all premiums.

Invoicing

The premium processor will receive individual plan and premium information from the Vermont Health Connect for each family unit in the Individual Exchange. This will include all subscribers' plans, premiums due, and subsidies received. The premium processor will aggregate all premium information in order for an invoice to be sent to the individual either electronically or via paper.

The following items will be included on the invoice:

- Subscriber and Dependent Names
- Plan(s)
- Premium(s)
- Federal APTC
- State Premium Assistance
- Premium Amount due net of subsidies
- YTD paid premium
- YTD subsidies received
- Premium payment coupon with "remit to" address
- Information regarding online payment and recurring payment options

Premium Collection

The individual is required to pay a total premium amount due which is then allocated to each plan premium. Individual invoices will be generated based on billing cycles dictated by the ACA and developed by the State of Vermont. Individuals will have the option of viewing and paying invoices online. (See CGI Payment Screens) They will also have the option to receive Paper or Electronic invoices. Individuals will have the ability to pay electronically or by paper methods to a Vermont addressed Lockbox that forwards all items received to the premium processor.

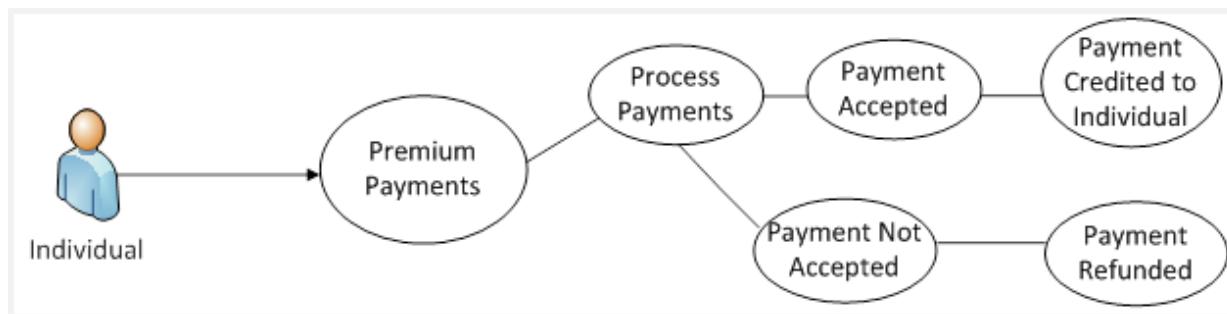
The premium processor will receive and process paper or electronic payments. Individuals may choose to set-up recurring electronic payments and the premium processor will debit from individual's accounts on a scheduled monthly basis. Payments will be allocated to premiums due and any over or under payments will be tracked and notification will be sent to the Individual in the form of a partial payment notice regarding the balance due. Any premium payments that are returned from the bank (e.g. NSF) will be voided and notification sent to the Individual and VHC.

All received payment data will be provided through electronic means to the VHC on a daily basis. This information, in turn, can be used to display historical payment information on VHC user interface.

Starting February 1st the premium processor will receive and apply payments based on hierarchical rules dictated by the state of Vermont. Hierarchical Allocation of Premiums (See State Approved Document).

The following exhibit illustrates the business process flow for premium payment and acceptance.

Exhibit 153: Process Flow of Premium Payment



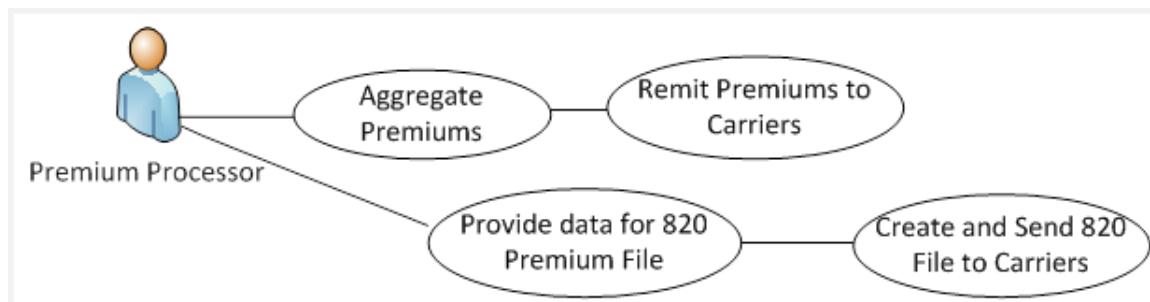
Remittance

Allocated full premium payments are aggregated for each Carrier to be remitted on a weekly basis as well as an end of month basis. An ACH draft of premiums received will be initiated by the Premium Processor on every Tuesday in order to credit Carrier accounts every Wednesday. As the ACH draft is created, the Premium Processor will also provide corresponding data to VHC which will enable an 820 payment file to be created that will match premium dollars to individuals and plans. (see the CGI 820 File Creation Process section)

Remittance will be based on a posted and adjusted process for each remittance cycle. When changes to enrollment and premium occur after a remittance cycle, those changes will be noted as adjustments for the next remittance period.

The following exhibit illustrates the business process flow for premium remittance.

Exhibit 154: Premium Remittance



Refund Process

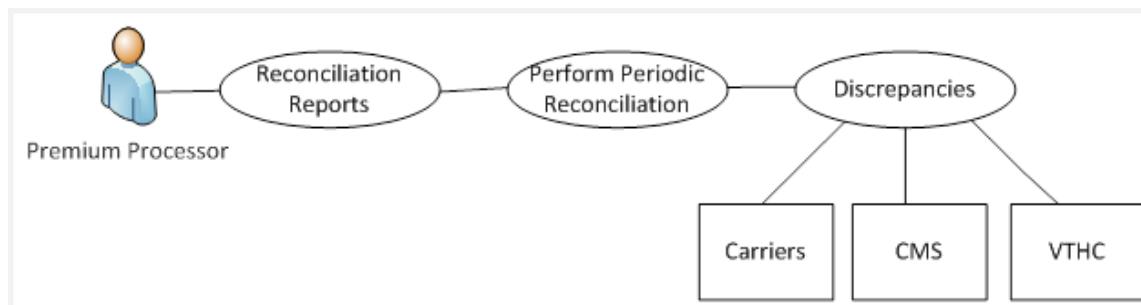
Individuals will be required to make payments within billing timeline guidelines. Premium payment status will be provided to Carriers and in turn Carriers will determine active/termination status. Carriers will inform VHC of a termination along with a termination date and grace period end date. This information will be passed to the premium processor and payments received with a post mark date after the termination date will not be accepted and will be returned to individuals. Payments received with a post mark date prior to the termination date will be accepted and payment information will be provided from VHC to Carriers in order to reinstate the individual. Terminated individuals will be refunded any unallocated balance based on the date of the termination. When Bennaissance learns of a termination and corresponding date, funds will be allocated to plans accordingly and if there is a remaining balance, that balance will be refunded in the form of a check to the individual.

APTC and CSR Reconciliation

To provide affordable coverage the Patient Protection and Affordable Care Act included provisions for Premium Assistance and Cost Sharing Reductions. The Advance Premium Tax Credit reduces the Premium obligation by subsidizing premiums for eligible Individuals. Cost Sharing Reductions reduce the out-of-pocket costs for eligible individuals. The process of APTC Reconciliation ensures that the Premium Tax Credit being provided to Individuals matches the APTC being remitted in advance to Carriers by CMS. The process of CSR Reconciliation ensures that the CSR payments remitted to Carriers by CMS matches with the reductions provided to Individuals by Carriers for their Out-Of-Pocket expenses.

The following exhibit illustrates the business process flow for APTC and CSR Reconciliation

Exhibit 155: APTC and CSR Reconciliation



Discrepancy Management

Individuals will be required to pay premium obligations in based on the enrollment and billing timelines approved by the State of Vermont. (See *external enrollment and billing timelines document*) Non-payments, over payments, and under payments will be tracked by the premium processor and the individual will be notified of the discrepancy and the action required. The individual will receive the same notification for both under payments and over payments in the form of a partial payment notice. The partial payment notice will define which premium month is partially paid and what the balance due amount is.

The premium processor will support individual inquiries through VHC. Individuals will have the ability to notify VHC of a discrepancy and the daily payment information provided by the premium processor will assist Customer Support in resolving discrepancies. If VHC Customer Support is unable to resolve a discrepancy the premium processor will act as Level 3 support to assist. Additional information or research can be done by the premium processor. The premium processor will have the ability to manually adjust payments and/or update an individual's account and generate an updated invoice as needed. The premium processor will interact with VHC support via phone or electronic means and will not interact with individual subscribers directly.

Premium Processing – Small Business

Premium Aggregation in the Small Business VHC involves aggregating all Employee premiums on one invoice to be sent to the Billing Contact at the employer. The Employer, based on its contribution model, will withhold funds from payroll for the Employees covered by the selected plans. The Employer, as the Sponsor of the plans, is then required to pay VHC for the full monthly amount invoiced.

Premium Invoicing

Note: Refer to the Enrollment and Billing Timeline Document for invoice dates and corresponding due dates.

The premium processor will receive employee premium information from VHC including the employer/employee contribution for each employee and selected plan. The premium information will then be aggregated to show a total summary to the employer of premium amounts due by plan. Within the invoice each plan will have all enrolled employees with detail regarding each employee benefit coverage level, contribution and totally premium amount due. The premium processor will provide the aggregated information back to VHC to view electronically or a paper invoice can be generated and mailed to the employer.

The following items will be included on the invoice:

- Premium summary by plan
- Detail premium information by plan and enrollee
- Employer contribution
- Employee contribution
- Total Premium
- Premium payment coupon with remit to address
- Information regarding online payment and recurring payment options

Premium Collection

Note: Refer to the Enrollment and Billing Timeline Document for invoice dates and corresponding due dates.

The employer is required to pay the full premium amount for a given billing period shown on the invoice. The paid premium is then allocated to each plan premium. Employers will have the option to view and paying invoices online. (See CGI Payment Screens). They will also have the option to receive Paper or Electronic invoices on a monthly basis. Employers will have the ability to make enrollment additions, subtractions, and changes online and that information will be sent to the premium processor to update the aggregated premium due for the employer.

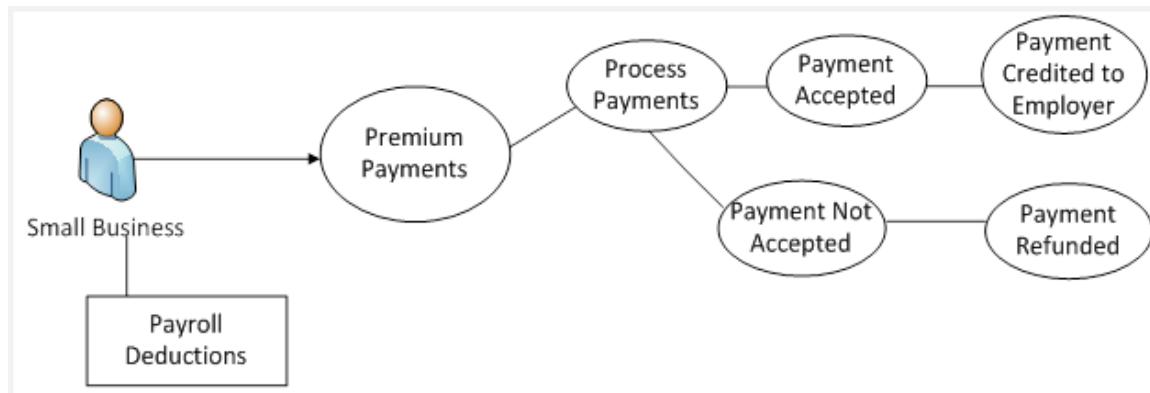
Employers will have the ability to pay electronically or by paper methods to a Vermont addressed Lockbox that forwards all items received to the premium processor.

The premium processor will receive and process paper or electronic payments. Employers may choose to set-up recurring electronic payments and the premium processor will debit from employer's accounts on a scheduled monthly basis. Payments will be allocated to premiums due and any partial payments will be tracked and notification will be sent to employers regarding the balance due in the form of a partial payment notice. Any premium payments that are returned from the bank (e.g. NSF) will be voided and notification sent to the employer VHC.

All received payment data will be provided through electronic means to VHC on a daily basis. This information, in turn, can be used to display historical payment information online for the employer to view.

The following exhibit illustrates the small business premium collection process.

Exhibit 156: Small Business Premium Collection



Premium Refunds

Employers will be required to make payments within billing timeline guidelines. Premium payment status will be provided to Carriers and in turn Carriers will determine active/termination status. Carriers will inform VHC of a termination along with a termination date and grace period end date. This information will be passed to the premium processor and any payments received with a post mark date after the termination date will not be accepted and will be returned to employers. Payments received with a post mark date prior to the termination date will be accepted and payment information will be provided from VHC to Carriers in order to reinstate the individual.

Terminated employers will be refunded any unallocated balance based on the date of the termination. When Benaisance learns of a termination and corresponding date, funds will be allocated to plans accordingly and if there is a remaining balance, that balance will be refunded in the form of a check to the employer.

When Benaisance learns of a termination and corresponding date, funds will be allocated to plans accordingly and if there is a remaining balance, that balance will be refunded in the form of a check to the individual.

Discrepancy Management

Employers will be required to pay premium obligations in based on the enrollment and billing timelines approved by the State of Vermont. (See *external enrollment and billing timelines document*) Non-payments, over payments, and under payments will be tracked by the premium processor and the employer will be notified of the discrepancy and the action required. The employer will receive the same notification for both under payments and over payments in the form of a partial payment notice. The partial payment notice will define which premium month is partially paid and what the balance due amount is.

The premium processor will support employer inquiries through VHC Customer support. Employers will have the ability to notify VHC with a discrepancy and the daily payment information provided by the premium processor will assist Customer Support in resolving discrepancies. If VHC Customer Support is unable to resolve a discrepancy the premium processor will act as Level 3 support to assist. Additional information or research can be done by the premium processor and corrected and/or updated billing notifications can be generated as needed.

The premium processor will interact with VHC support via phone and or electronic means and will not interact directly with employers.

Premium Processing - Carriers

Premium Aggregation

Premium aggregation is the process of aggregating payments that have been allocated to premium by each Carrier offering plans within VHC. VHC is offering QHPs as well as state Medicaid plans therefore premium aggregation for the state will follow the same process as carrier's offering QHPs. In the context of carriers, premium aggregation and remittance includes the state as a carrier of Medicaid plans.

Premium aggregation is a necessary step of financial management as the premium processor acts as the custodian to the premium dollars that ultimately belong to carriers.

Remittance

The premium processor will accept payments, allocate to plan premiums and then aggregate and remit premium dollars to Carriers and the State on a weekly remittance cycle and on the last business day of each month. The premium processor will manage the ongoing remittances and provide Level 3 call center support related to the remittances.

The remittance process will be through an ACH bank transfer from custodial account to each Carrier and State account. The premium processor will initiate the premium transfer and will provide corresponding information to VHC in order for an 820 file to be created and provided to the carriers. The 820 file will be sent from VHC to Carrier and the State which will include detail regarding members, plans and premiums that match the ACH bank transfer.

Discrepancy Management

The premium processor will support carrier inquiries through VHC Customer support. Carriers will have the ability to notify VHC with a question or discrepancy. The weekly and month-end remittance information provided by the premium processor will assist Customer Support in resolving these questions or discrepancies. If the VHC Customer Support representative is unable to resolve a discrepancy the premium processor will act as Level 3 support to assist. Additional information or research can be done by the premium processor to resolve.

The premium processor will interact with VHC support via phone and or electronic means and will not interact directly with carriers.

Premium Processing – State of Vermont

State Premium Assistance

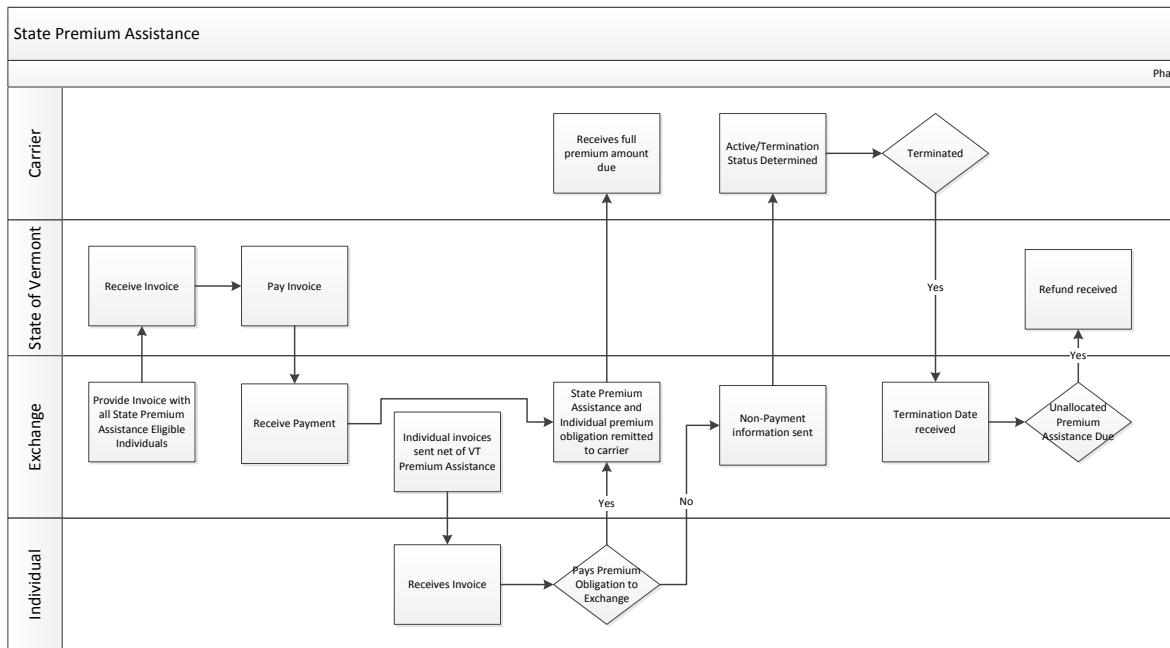
The state of Vermont will provide premium assistance to eligible individuals based on income data entered during the enrollment process. The calculated premium assistance amount will be passed to the premium processor and will be included as a subsidy afforded to individuals which reduces the premium obligation for the individual.

This premium assistance is similar to the Federal APTC as it reduces an individual's premium obligation; however it is not a tax credit that is reconciled on an individual's tax filings at the end of the plan year. The premium assistance amount is paid by Vermont and the premium processor will invoice the state on a monthly basis for all qualified active individuals. The invoiced amount will be paid by the state to the premium processor.

As individuals pay premium amounts due, the premium processor will match the state premium assistance amount to the individual's premium and remit total premium amounts to carriers accordingly. If an individual fails to pay his premium amount for a given month, the state premium assistance will be held by the premium processor until the individual either pays the premium amount due or terminates based on Carrier determinations. Based on the termination date and the grace period end date provided by a Carrier, the premium processor will refund to the state any previously collected premium assistance funds that were not matched and remitted to a Carrier.

On a quarterly basis the premium processor will provide a report that shows premium assistance funds that have been matched and remitted to carriers. It will also show premium assistance funds that have not been matched and remitted to carriers. The state of Vermont needs this quarterly report in order to receiving matching federal funds for the Vermont premium assistance funds that are given to individuals.

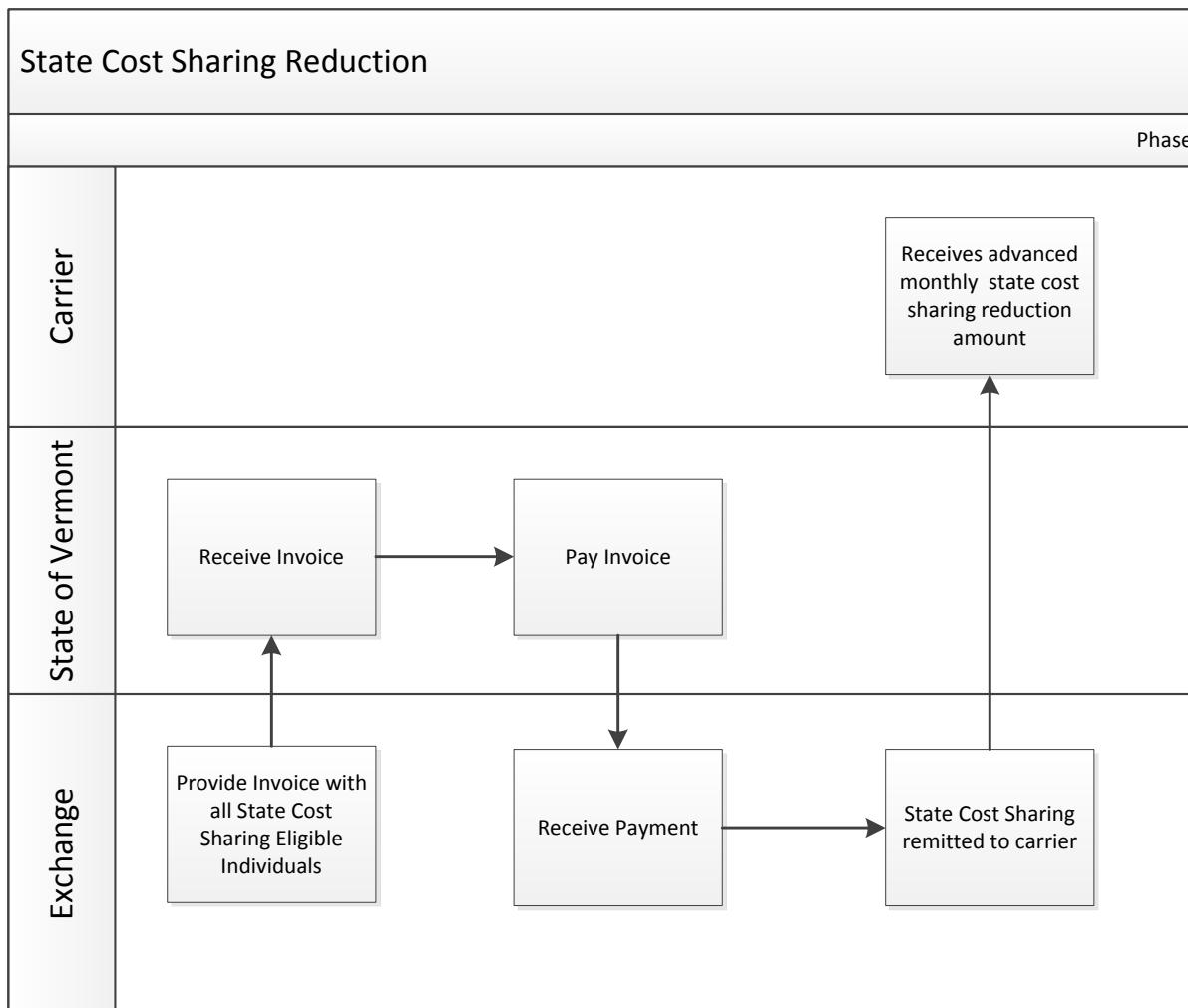
Exhibit 157: State Premium Assistance



State Cost Sharing Reductions

The state of Vermont will provide additional Cost Sharing Reductions to eligible individuals based on income data entered during the enrollment process. The calculated VT CSR will be sent to the premium processor. The VT CSR will mirror the federal CSR in application to the individual and reconciliation from Carriers. The VT CSR will be paid by Vermont to carriers for eligible individuals. The premium processor will invoice the state on a monthly basis for all qualified individuals. The premium processor will collect the funds from the state and remit to carriers accordingly on a monthly basis. When an individual terminates, the premium processor will no longer invoice the state for the individual CSR amount.

On an annual basis the premium processor will receive, from VHC, carrier reconciliation data based on actual claims experience for the plan year. The net difference will either be invoiced to the state and remitted to carriers or will be invoiced to the carriers and remitted to the state.

Exhibit 158: State Cost Sharing Reduction


Requirements Addressed

Premium Processing - Individual

The following exhibit requirements which are "Met" by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 159: Requirements Addressed – Premium Processing Individual

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-036	Aggregate individual premium payment amount itemized by billing cycle and by product.	Validated	Brenaissance internal plan premium set-up process	
FM-039	Send Invoice notification to Individual for monthly premium payment using USPS mail or secure email link	Validated	Brenaissance letter generation system.	
FM-041	The invoice should include upcoming month's premium due, year to date paid amounts, and if applicable, prior unpaid premium amounts and adjusted amounts.	Validated	Brenaissance internal invoice creation system.	
FM-042	Produce electronic or hard-copy monthly premium invoice to individual or family unit, itemized by product/program and summarized to one total amount	Validated	Brenaissance internal invoice creation system.	
FM-046	Provide the ability for individuals and family units to pay premium via ACH Debit (Automated Clearing House) and debit/credit card in compliance with the Payment Card Industry Data Security Standards for public and private plans.	Validated	Brenaissance internal authorization system. Integrated with CGI payment screens.	
FM-048	Support individuals making recurring or scheduled premium payments to the VHC.	Validated	Brenaissance internal authorization system. Integrated with CGI payment screens.	
FM-049	Receive and process premium payments from individuals and family units.	Validated	Brenaissance internal payment processing/lockbox process.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-050	Track premium payment timing relative to the premium due date, and not the grace period end.	Validated	Benaissance internal payment acceptance system.	
PPRFP -001	Establish an interface with the VHC in order to receive enrollment and premiums data (e.g., members' share of the premium, advance premium tax credit (APTC), cost sharing reductions (CSRs), state premium subsidy amount(s), and state CSR) for each family unit enrolled in coverage through the VHC.	Validated	Benaissance and CGI Integration.	
PPRFP -004	Support the ability for individuals and family units to pay by paper payment methods (e.g. check or money order).	Validated	Benaissance internal authorization system. Integrated with CGI payment screens.	
PPRFP -008	Reconcile each family unit's premium amount received with the amount due.	Validated	Benaissance internal payment processing system.	
PPRFP -013	Inform the family unit of an over payment.	Validated	Benaissance internal payment processing system and letter generation system.	
PPRFP -014	Inform the family unit that a credit for an overpayment has been applied to the family unit's account.	Validated	Benaissance internal payment processing system and letter generation system. Internal	
PPRFP -022	Provide data daily to the VHC to support the VHC providing regular updates including "paid through date" reporting (834 'benefit coverage period') to the Carriers and the State's Medicaid Business Office.	Validated	Benaissance internal data system and CGI Integration	
PPRFP -024	Update the family unit's account as a result of the termination notice.	Validated	CGI Integration – Benaissance Internal plan enrollment system	
PPRFP -025	In the case the family unit has terminated coverage and has a balance outstanding; send the family unit any refunds due.	Validated	Benaissance internal allocation/refund system	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP-026	Provide data to the VHC to support the VHC developing and sending premium payment reports via EDI 834 and EDI 820 transactions to the Carriers.	Validated	Benaissance internal payment system	
PPRFP-028	Integrate with the VHC system to allow family units to view their payment history and manage their account through the VHC system.	Validated	CGI Integration – Benaissance Internal payment system	

Premium Processing – Small Business

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 160: Requirements Addressed – Premium Processing Small Business

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-029	Receive and process premium payments.	Validated	Benaissance internal payment processing/lockbox process.	
PPRFP-032	Establish an interface with the VHC in order to receive enrollment and premium data (e.g., total amount due, employer share, employee share) from the VHC for each group that enrolls in coverage.	Validated	Benaissance and CGI Integration.	
PPRFP-035	Support the ability for small businesses to pay by paper payment methods (e.g. check or money order).	Validated	Benaissance internal payment processing system and CGI integration	
PPRFP-041	Provide data to the VHC to support the VHC developing and sending premium payment reports via EDI 834 and EDI 820 transactions to the Carriers.	Validated	Benaissance internal plan enrollment system and CGI integration	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP-059	Integrate with the VHC system so that the VHC system can allow groups to view their payment history and manage their account through the VHC system.	Validated	Benaissance internal payment tracking system and CGI integration	
PPRFP-048	Receive notification from Customer Service of any group premium invoice discrepancy.	Validated	CGI integration and internal Benaissance support tracking system	
PPRFP-049	Provide Level 3 customer support to the VHC call center via phone and web. (Premium Processor will not be expected to provide live direct service to consumers or employers).	Validated	Internal Benaissance support tracking system.	
PPRFP-050	Resolve the invoice discrepancy, and notify the VHC call center of the resolution.	Validated	Internal Benaissance support tracking system.	
PPRFP-036	Generate an invoice on paper or provide electronically to the VHC (viewable through the VHC) for each group based on inputs provided by the VHC (e.g., amounts due for each member of the group, QHP enrollment information, employee share of premium, employer share of premium, total premium), as well as invoice adjustments.	Validated	Benaissance internal invoice creation system and CGI Integration.	
PPRFP-042	Send the employer and the employees a late payment notification upon the trigger that an invoice has not been paid.	Validated	Benaissance internal payment tracking and letter generation system.	
PPRFP-043	Send the employer and the employees an underpayment notification upon the trigger that an invoice has not been fully paid.	Validated	Benaissance internal payment tracking and letter generation system.	
PPRFP-037	Reconcile the payments received against the invoiced amount.	Validated	Benaissance internal payment processing system.	
PPRFP-038	Remit the reconciled premium payment to the appropriate Carriers.	Validated	Benaissance internal premium remittance and banking process.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP-039	If any discrepancies are found during reconciliation, credit overpayments towards future billing, update account balance, or trigger notification of underpayment.	Validated	Benaissance internal payment processing and allocation system.	
PPRFP-040	Allow for premium adjustments resulting from changes to employee enrollments or employer discrepancy resolution after the invoice has been issued, and establish a process to accommodate these changes in the next billing cycle.	Validated	Internal Benaissance plan enrollment adjustment and allocation process.	
PPRFP-054	Receive termination notification from the VHC.	Validated	Benaissance and CGI integration.	
PPRFP-055	Update the group account accordingly once termination notification is received.	Validated	Benaissance internal plan enrollment adjustment process.	
PPRFP-056	In the case the group has terminated coverage and has a credit outstanding; refund the group any overpayments due.	Validated	Benaissance internal allocation/refund system	

Premium Processing – Carriers

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 161: Requirements Addressed – Premium Processing Carriers

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-084	Provide appropriate data to the VHC to support Customer Service workers in completing customer service requests.	Validated	Benaissance and CGI integration	
FM-098	The system will aggregate premium payments for each Issuer.	Validated	Benaissance internal premium aggregation process	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP -061	Aggregate individual VHC premium remittances for State programs (e.g. Medicaid).	Validated	Benaissance internal premium aggregation and remittance process for state programs.	
PPRFP -062	Aggregate individual VHC premium remittances for QHP Carriers.	Validated	Benaissance internal premium aggregation and remittance process for individuals	
PPRFP -063	Aggregate group VHC premium remittances.	Validated	Benaissance internal premium aggregation and remittance process for groups.	
PPRFP -064	Establish a process to remit premiums to Carriers on behalf of a family unit and groups with members enrolled in QHPs.	Validated	Benaissance internal remittance and banking process for Carriers.	
PPRFP -065	Establish a process to remit premiums to the State Treasurer's Account on behalf of family units with members enrolled in State programs (e.g. Medicaid).	Validated	Benaissance internal remittance and banking process for State programs.	
PPRFP -066	Receive premiums for individual on behalf of the Carriers and the State.	Validated	Benaissance internal payment processing system.	
PPRFP -068	Generate premium remittance reports and send to the VHC so that the VHC can format and send to the Carriers.	Validated	Benaissance internal reporting system and CGI integration.	
PPRFP -070	Provide Level 3 customer support to level 2 VHC Issuer Support Team via phone and web. (Premium Processor will not be expected to provide live direct service to Carriers).	Validated	Benaissance internal support process.	

Premium Processing – State of Vermont

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 162: Requirements Addressed – Premium Processing Carriers

Ref Code	Description	Status	Design/Solution Description	Open Action Items
PPRFP-071	Establish an interface with the VHC in order to receive enrollment and premiums data (e.g., members' share of the premium, advance premium tax credit (APTC), cost)	Validated	Benaissance and CGI interface	
PPRFP-082	Maintain books, records, documents, and other evidence of accounting procedures and practices of the premium processing program for each benefit year for at least 10	Validated	Internal Benaissance accounting and tracking system	
PPRFP-073	Transmit the family unit's premium payment for public programs (e.g., Dr. Dynasaur) to the State Treasurer's bank account no more frequently than weekly.	Validated	Benaissance remittance and banking process	
PPRFP-075	Provide data daily to the VHC with 'paid through date' information to support determination of payments past due.	Validated	Benaissance and CGI integration to provide data	
PPRFP-078	Receive termination notification from the VHC and update the family unit and group account.	Validated	Benaissance and CGI integration to provide data	
New-110	Quarterly, provide the data to the VHC to support the reporting of the state premium subsidy payments that have not been forwarded to the Issuer due to a lack of matching premium payments from the individual.	Validated	Benaissance internal premium tracking and CGI integration for reporting	
New-025	Invoice State Premium Subsidy to the State, to pay Carriers on the State's behalf, when premiums are remitted by an individual.	Validated	Benaissance internal invoicing process	
New-026	Invoice State CSR payment to the State, to pay Carriers on the State's behalf.	Validated	Internal Benaissance invoicing process	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
New-027	Collect State Premium Subsidy payment from State and transmit to Issuer.	Validated	Internal Benaissance banking process	
New-028	Collect State CSR payment from State and transmit to Issuer	Validated	Internal Benaissance banking process	
New-029	Confirm receipt by Issuer of State Premium Subsidy payment.	Validated	Internal Benaissance banking process	
New-030	Confirm receipt by Issuer of State CSR payment.	Validated	Internal Benaissance banking process	
New-105	Receive from the VHC actual State CSR due amounts as calculated by the Carriers to reconcile against the advanced State CSR payments, at the individual level.	Validated	Benaissance and CGI integration reconciliation process	

Key Assumptions and Considerations

Assumptions

- User Interface not provided by Premium Processor
- All information received and generated by the premium processor will be provided to VHC
- A real-time process will occur for validation purposes when a consumer pays online via credit or debit card
- Lockbox established by State and Premium Processor
- United States Postal Service will be used to Fast Forward all received items in lockbox
- Banking account information will be received from State and Carriers in order to initiate ACH funds transfers
- Premium Processor will not interact directly with consumers
- Premium Processor will not process items that are not payment related – all non-payment related items will be provided to VHC to review
- Access to the premium processor's administrative system will be granted to designated DVHA office workers

Functional Considerations

The premium processor will integrate with the VTHC to perform all processes related to invoicing, premium collection, processing, and remittance.

Solution / Technical Considerations

Benaissance, Enterprise Service Bus, CGI.

New Testing Considerations

The following testing items must be considered:

- What are the requirements for testing?
- Verify test descriptions in the requirements tracking tool, Application Lifecycle Management (ALM).
- Are there specific conditions that must be met?

Premium Processing Design Details

Interfaces and Data Elements

Data

- [Existing screen name (see Siebel Bookshelf)]
- New data field(s) required
 - ▶ Data name or type:
 - ▶ Description:
 - ▶ Relationship to other data:
 - ▶ How will it get collected? :
 - ▶ Is it to be reported? :
 - ▶ Are there interface requirements?
 - ▶ Who has access to this data?
 - ▶ Are there any validation requirements:
 - ▶ Are existing processes affected by this new data?

Reports and Notices Generated

Premium Processing notices will be created, generated, and mailed by the premium processor.

Individual Notices include: Premium Invoice, Partial Payment Notice, Plan Change Notice, Refund Notice, and Void Notice

Small Business Notices include: Group List Bill (Invoice), Partial Payment Notice, Refund Notice, Void Notice

The premium processor will also provide the ability for individuals and employers to receive electronic notices. Electronic communication may be managed directly from the premium processor or through VHC. When an electronic message is sent a corresponding PDF is sent to VHC with all premium information for the individual or employer to view after logging into a member account within VHC.

User Interface (Existing Screen)

Interface not provided by premium processor. Data integration to provide information for user interface.

Business Rules

To be completed in a future version of this document

References

External Enrollment and Billing Timelines document

21.7.3 Hierarchical Allocation of Payments to Premiums FSD

As a general rule, the best practice when performing consolidated premium billing (billing one family or employer for multiple plan premiums on one invoice) is to treat any partial payments received (payments that are for an amount less than the total amount due for the next due premium month) simply as partial payments. Developing rules to attempt to intuit the intent of the consumer or employer who paid less than the full amount owed almost universally results in a frustrated consumer. Experience has shown that in most cases when a consumer makes a partial payment it is either because they intend to make multiple partial payments throughout the billing cycle as they have funds available, or because they intend to make an adjustment/reduction to their insurance coverage. Therefore, if the premium biller unilaterally decides to allocate a partial consumer payment to a given type of insurance over another, the consumer becomes frustrated when this unilateral decision was contrary to the consumer's intent.

Though the above is understood, the Vermont Health Connect (VHC) health insurance exchange will be supporting Vermont residents determined eligible for both commercial Qualified Health Plans under the Affordable Care Act and for State health programs including (1) Dr. Dynasaur which provides low-cost or free health coverage for children, teenagers under age 18 and pregnant women, and (2) VPharm which assists Vermonters who are enrolled in Medicare Part D with paying for prescription medicines. VPharm is available to people age 65 and older as well as people of all ages with disabilities and includes an affordable monthly premium.

It is important to the State of Vermont (SOV) that when a Vermont family enrolled in health insurance through the VHC has coverage for family members that include one or both of the State programs (as well as one or more Qualified Health Plans ("QHP") and/or Dental insurance plans), that the State program premiums receive first priority when allocating a partial payment made by the family to the total monthly premium(s) owed by the family. The State desires that partial payments made by Vermont families towards their total monthly premiums owed always be allocated first within the family's next due premium month to any Dr. Dynasaur premiums, then to any VPharm premiums, then to major Medical insurance QHP premiums, and lastly to any Dental insurance premiums.

The rules governing the hierarchical allocation of payments to premiums will apply only to the VHC Individual Health Insurance Exchange and will not apply to the VHC Small Business Health Insurance Exchange.

Hierarchical Allocation of Payments to Premiums

This spec outlines the business requirements for hierarchical allocation of payments to premiums within the VHC Individual Health Insurance Exchange.

Requirements Addressed

This Exhibit includes requirements for hierarchical allocation of payments to premiums:

Exhibit 163: Requirements – Hierarchical Allocation of Payments to Premiums

Requirement ID	Requirement Statement
Prerequisite Requirements	<p>The requirements defined herein are specific to the Vermont Health Connect Health Benefit Exchange and are a subset to the more generally applicable Bennaissance Granular Allocation Requirements previously defined though not yet developed or in production use.</p> <p>Please note that any Direct Allocation of a Member Payment to a Member Plan (as documented in the Granular Allocation Requirements BRD) will always take precedence over hierarchical allocation rules. For example, if an Issuer reports receipt of a Member Payment and that payment is entered into the Bennaissance billing system for the Member as a Carrier Non-Cash Non-Remit Payment that payment must be directly allocated to the Member's specific Issuer Plan Premium and not be subject to the hierarchical allocation rules.</p>
Member.Payments.Allocation.WholeBillingPeriodAllocation	<p>Whole Billing Period Allocation is the current allocation setting in the production Bennaissance billing systems. Under this option all of a Member's Plan Premiums must be able to be allocated in full for a Billing Period from a combination of Payments and Subsidies before the Billing Period may be allocated. In this model allocation always proceeds in calendar chronological order beginning with the earliest billing period yet to be fully allocated and progressing chronologically forward until the (Member Payment + Subsidy) dollars being allocated are not enough to fully allocate the next Billing Period due.</p>

Requirement ID	Requirement Statement
Member.Payments.Allocation. AllocationByInsuranceTypePriority	<p>When “Allocation Based on Insurance Type Priority” is enabled, the resulting allocation should be very similar to the current Whole Billing Period Allocation, except that within a Billing Period payment allocation should proceed through the Member Plan premiums due in the order of their Insurance Type priority as defined. If the (Member Payment +Subsidy) dollars being allocated are enough to allocate one or more Member Plan premiums within a Billing Period but not enough to fully allocate all Member Plan premiums due for the Billing Period the Member Plan premiums which can be allocated should be subject to the rules defined herein.</p> <p>For the avoidance of doubt, all Plan Premiums due within a Billing Period for all Insurance Types must be fully allocated before any Plan Premiums may be allocated for the next chronological Billing Period.</p> <p>In the Vermont Health Connect, the allocation Insurance Type Priority Order will be the following:</p> <p>Dr. Dynasaur VPharm Medical QHP Dental</p> <p>Allocation should always follow the Insurance Type priority defined above regardless of Plan Premium amounts due relative to payment amount. For example, if a Member owes \$60 for Dr. Dynasaur Plan Premiums and \$50 for Dental Plan Premiums for the next Billing Period due, and the Member makes a payment for \$50, the entire \$50 will be placed in the Member’s Unallocated Balance since \$50 is not enough to fully allocate 100% of the Plan Premiums due for the first priority Insurance Type (Dr. Dynasaur).</p> <p>If a Member and his/her dependents owe premiums for more than one Plan within an Insurance Type for a given Billing Period, all Plan Premiums within the Insurance Type must be able to be fully allocated from the current payment being allocated or none of the Plan Premiums within the Insurance Type may be allocated and any leftover funds should be placed in the Member’s Unallocated Balance. For the avoidance of doubt, the system will not support the allocation of one Medical QHP Plan Premium as a priority over another QHP Plan Premium.</p>
Member.Premiums	<p>When hierarchical allocation occurs resulting in the allocation of one or more Member Plans for a Billing Period this allocation needs to be reflected in the next premium due information for the Member even if not all Member Plans are yet allocated for the Billing Period. To be clear, only those Member Plans which have been allocated should display/report as being allocated.</p>
Member.Payments.NextPaymentDue	<p>When a hierarchical allocation has occurred for a Member, a User accessing payment/premium due information for the Member in a Benaisance web portal, through an external Web Portal integrated to a Benaisance billing system through Web Services, or a User viewing a financial data report with data originating from the Benaisance billing system will need to see more precision in the Member’s amount due information. For example if the Medical Plan Premium is allocated, the User needs to see that amount as allocated and see that the Member’s Dental Plan Premium is still outstanding and any Member Unallocated Balance.</p>
Letters.PartialPaymentLetter	<p>The Partial Payment Letter should still be triggered anytime an allocation results in a Member Unallocated Balance but it should also now be triggered anytime a granular allocation occurs but the Member is left in a state where less than a whole Billing Period has been allocated. The letter will need to be updated to clearly communicate when a granular allocation has occurred.</p>

Business Rules

Exhibit 164: Business Rules – Hierarchical Allocation of Payments to Premiums

Rule ID	Rule Statement
HA.BR01	All Plan Premiums due within a Billing Period for all Insurance Types must be fully allocated for a Member before any Plan Premiums may be allocated for the next chronological Billing Period.
HA.BR02	Hierarchical Allocation should always follow the Insurance Type priority defined regardless of Plan Premium amounts due relative to payment amount. Even if a payment could satisfy the Plan Premiums due for a lower priority Insurance Type, if it cannot satisfy 100% of the Plan Premiums due for a higher priority Insurance Type it may not be allocated to the lower priority Insurance Type.
HA.BR03	When a Member has more than one Plan under a given Insurance Type for a given Billing Period, all Plan Premiums within a given Insurance Type must be able to be fully allocated at one time before any Plan Premiums within the Insurance Type may be allocated.
HA.BR04	When a Payment is received which must be directly allocated to a specific Plan Premium under the rules for Direct Allocation, allocation takes precedence over the hierarchical allocation rules defined herein. The Direct Allocation must also be maintained through any reallocation.

Future Considerations

As of March 28, 2013, the VHC expects to begin offering and administering the VPharm benefit in the 2015 plan year not in the 2014 plan year.

Definition of Terms

Term	Definition
ACA	Affordable Care Act – The collective term for the combination of the Patient Protection and Affordable Care Act enacted March 23, 2010 and the Health Care and Education Reconciliation Act enacted March 30, 2010.
Billing Period	A defined period of time for which a Plan Premium is owed. Often this is Monthly in health insurance (i.e. a Member owes a \$500 per month premium), but Benaissance systems also support Plans with weekly, bi-weekly, quarterly, and annual Billing Periods.
Carrier Non-Cash Non-Remit Payment	A payment type supported by the Benaissance billing systems which allow insurance carriers (Issuers) to report premium payments received directly by the carrier from the Member. These payment need to be Directly Allocated to the Member's Plan Premium for the Issuer, but the key is that these payments are not added to custodial cash and should not be included in a remittance to the carrier. They also cannot be refunded.
Direct Allocation	When a Member Payment is directly tied to a Member Plan and the monetary value of the payment may only be allocated to that Member Plan including during any future reallocation.
Dr. Dynasaur	A State of Vermont health program which provides low-cost or free health coverage for children, teenagers under age 18, and pregnant women.
Exchange	The ACA provides for insurance exchanges in each state known as American Health Benefits (AHB) Exchanges. President Obama describes Exchanges as, "a market where Americans can one-stop shop for a health care plan, compare benefits and prices, and choose the plan that's best for them."
Issuer	Insurance carrier that offers plans within an Exchange
Insurance Type	Medical, Dental, Vision, Dr. Dynasaur, VPharm, etc. The Insurance Types in each Customer database are defined in a lookup table. All Plans must have an Insurance Type defined.

Term	Definition
Member	An individual (and his/her dependent(s), if any) who owes health insurance premiums to the Vermont Health Connect Exchange in order to remain covered under an individual health insurance plan offered through the Exchange.
Plan	An insurance plan in which a Member and/or the Member's dependents is enrolled.
Premium	The amount of money owed by a Member for a Billing Period to remain covered under an insurance Plan.
QHP	A defined term under the ACA referring to a Qualified Health Plan offered by an Issuer in a Health Benefit Exchange. QHPs are Plans.
SHOP	Small Business Health Options Program – i.e. state health insurance exchange for small employers (50 or fewer employees initially) under the ACA
Subsidy	A reduction in the net amount owed by a Member for their Plan Premiums created when a third party entity (such as the Federal Government or the State of Vermont) offer to pay a portion of the Member's premium obligation to the Issuer(s) on behalf of the Member.
VPharm	A State of Vermont program which assists Vermonters who are enrolled in Medicare Part D with paying for prescription medicines. VPharm is available to people age 65 and older as well as people of all ages with disabilities and includes an affordable monthly premium.

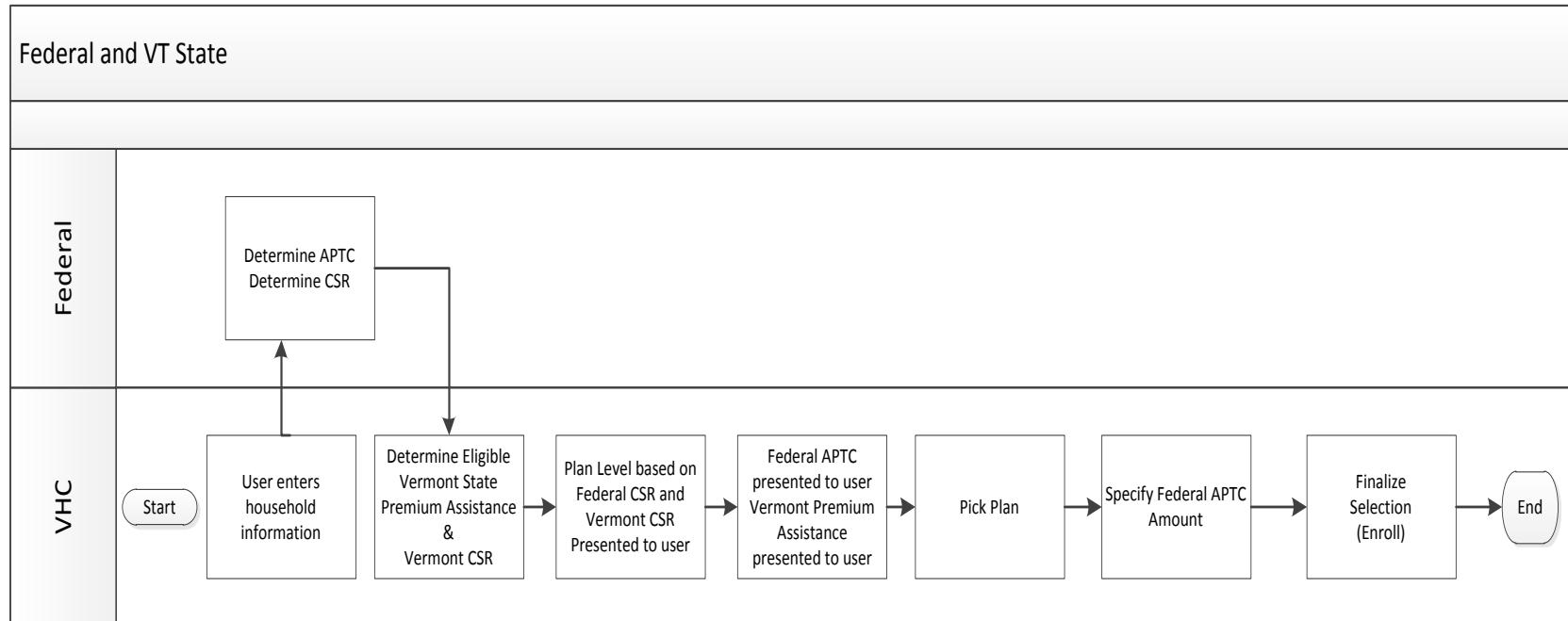
21.7.4 SOV Premium Assistance & Cost Sharing Reduction FSD

Attendee/Contributor(s) List

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Brett Ackerman	Exeter	backerman@exeter.com

VT Premium Assistance and CSR Process

Business Process Diagram

Exhibit 165: Process Flow Federal APTC – Vermont State Premium Assistance (Federal and State CSR)


Requirements Addressed

The following exhibit contains requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 166: Requirements Addressed – SOV Premium Assistance and Cost Sharing Reduction

Ref Code	Description	Status	Design/Solution Description	Open Action Items
New-019	Establish individual eligibility and determine State Premium Subsidy amount.	Validated	Calculation will occur within the VHC Portal.	
New-020	Establish individual eligibility and determine State CSR amount.	Validated	Calculation will occur within the VHC Portal.	
FM-006	Update Exchange financial data with Federal APTC, CSR and State Premium Subsidy, CSR payments to Issuers for updating into the State's General Ledger, and forward to the Premium Processor.	Validated	OneGate Portal will capture these fields to be stored in the VHC.	
FM-009	Receive electronic reports of payments from CMS to Issuers for federal APTC and CSR amounts	Validated	Method/Format to receive TBD.	
FM-005	Transmit monthly 834 transaction file in a HIPPA compliant format of individuals enrolled in QHPs, including Federal APTC, CSR and State Premium Subsidy and CSR amounts to Issuers to support the monthly reconciliation process with Issuers.	Validated	This will be done via 834 transactions.	
New-018	The System shall generate a file of individuals enrolled in QHPs, including State Premium Subsidy, State CSR amounts to support the monthly reconciliation process with State and Issuers	Validated	Information for the file will be gathered in the VHC Portal and stored for this purpose.	
New-002	Quarterly, report to the State the state premium subsidy payments that have not been forwarded to the Issuer due to a lack of matching premium payments from the individual.	Validated	Report will be written to aggregate outstanding VT Assistance that was not transmitted to the issuers.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
New-120	Receive actual State CSR due amounts from the Issuers, and forward to Premium Processor.	Validated	Method/Format to receive TBD.	
FM-003	Generate monthly 834 transaction file in a HIPPA compliant format of individuals enrolled in QHPs, including Federal APTC, CSR amounts to support the monthly reconciliation process with CMS and Issuers.	Validated	This will be done via 834 transactions.	
New-130	Receive electronic payment history report from Issuers and forward to the Premium Processor	Validated	Method/Format to receive TBD.	
FM-004	Transmit monthly 834 transaction file in a HIPPA compliant format of individuals enrolled in QHPs, including Federal APTC, CSR and State Premium Subsidy and CSR amounts to CMS to support the monthly reconciliation process with CMS.	Validated	This will be done via 834 transactions.	

Key Assumptions and Considerations

Assumptions

- The individual must have a valid account on the VHC.
- The individual/household will qualify for either Federal APTC/CSR or State of Vermont Premium Assistance/CSR in order to validate these offerings.
- Determination of eligibility for assistance will use the Fed and state rules in VHC (driven by the Oracle Policy Automation OPA rules engine)

Functional Considerations

The following functional items considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the Portal with the role of individual and a login with the appropriate role in Siebel.
- The individual must choose one of 5 roles – Individual, Employee, Employer, Navigator and Broker (Additional roles currently under review and analysis include: Certified Application Counselor, Authorized User, and Alternate Reporter)
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Portal
- Oracle Identity Management Suite
- Benaissance - Premium Processor

New Testing considerations

The following testing items must be considered:

- The tester must have capability to log on as all (# TBD) identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login.

Portal VT Premium Assistance and CSR Design Details

Interfaces

Refer to Eligibility and Enrollment Federal Hub Verification

Data

Data for these screens:

Data	Where Captured	Where Stored
Vermont CSR – by Date	Portal	Siebel
Vermont Premium Assistance – by Date	Portal	Siebel
Calculation used for CSR	TBD	TBD
Calculation used for Vermont Premium Assistance	TBD	TBD

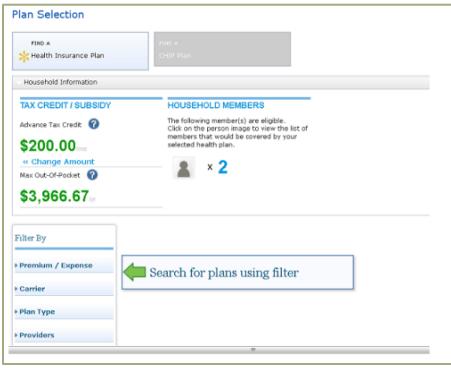
Reports and Notices Generated

Activity log information will be able to be extracted from Oracle Identity Manager on an as need basis.

User Interface (Screen Updates)

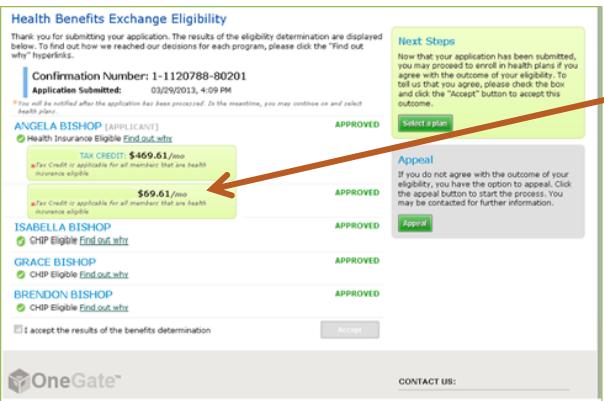
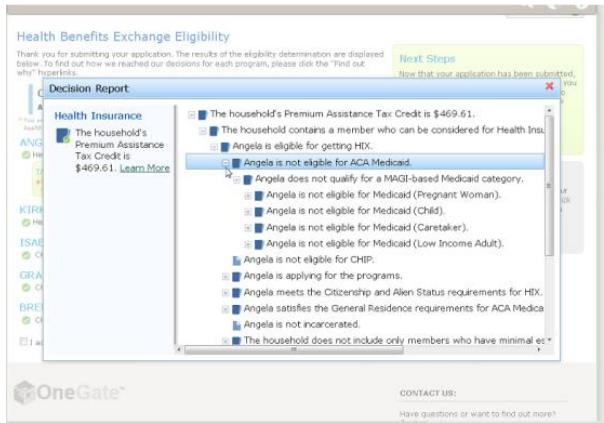
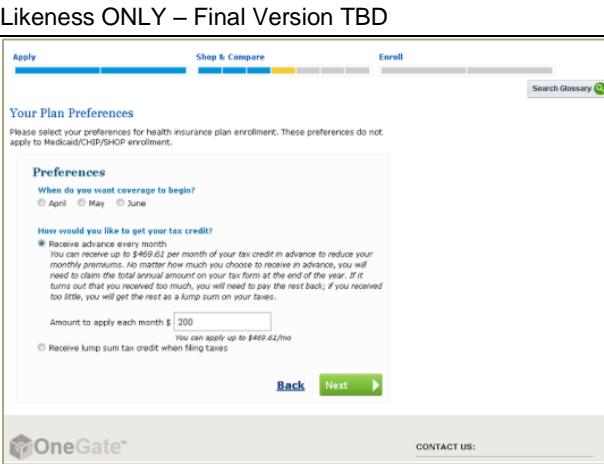
Work Flow/Scenarios

Exhibit 167: Workflow 1 - Plan Options/Review

Plan Selection Screen	Notes – Business Rules
	<p>Plans displayed will incorporate the VT CSR – although the actual amount of VT CSR as with the Federal CSR is not known to the end user.</p> <p>Plan pricing/cost will also display the VT Premium Assistance Amount.</p> <p>Similar to how the Federal APTC amount is displayed.</p>
	
	

Likenesses ONLY – Final Version TBD

Exhibit 168: Workflow 2 - Plan Selection

Screen/Tab	Notes – Business Rules
	<p>VT Premium Assistance shown along with Federal APTC during eligibility</p> <p>Also to be included in the eligibility report</p>
	
<p>Likeness ONLY – Final Version TBD</p>  <p>Likeness ONLY – Final Version TBD</p>	<p>Acknowledgement of receiving VT Premium Assistance to be added here.</p>

Use case general flow:

Individual		
Scenario	Description	Data Txns Achieved
Does not Qualify for Vermont	Individual/household does not qualify for Vermont Premium Assistance or CSR.	
Qualifies for Vermont CSR	Individual/household qualifies for Vermont CSR but does not qualify for VT Premium Assistance.	
Qualifies for Vermont Premium Assistance only	Individual/household qualifies for only Vermont Premium Assistance.	
Qualifies for both Vermont Premium Assistance and CSR	I Individual/household does not qualify for Vermont Premium Assistance or CSR.	

Business Rules

Core Business Rules - Federal APTC and CSR

To follow rules currently established by ACA.

Core Business Rules - Vermont Premium Assistance and Cost Sharing Reduction

Functional Description

Calculate the amount of Vermont Premium Assistance available and display this during the pre-screening and the enrollment process to help the end user to make an informed decision on the plan they wish to select. In summary, in all locations where the Federal APTC is shown the Vermont Premium Assistance should be shown as an additional line item.

Calculate the amount of Vermont Cost Sharing Reduction available and display this during pre-screening and the enrollment process to help the end user to make an informed decision on the plan they wish to select. In summary, in all locations where the Federal Cost Sharing Reduction is shown the Vermont Cost Sharing Assistance should be shown as an additional line item.

Core Business Rules

- Vermont Premium Assistance (VPA)
 - ▶ Follows the same eligibility rules as the Federal APTC.
 - ▶ Reduce the percentage of household income paid towards premiums per month by 1.5% for Vermonters under 300% FPL.
 - ▶ The delta between the Federal APTC and the APTC calculated by reducing the percentage of household income by 1.5% is known as the Vermont Premium Assistance.
 - ▶ If an individual is eligible for VPA, then it must be applied in full to the premium. The individual is not able to receive a portion of the VPA at the time taxes are filed.
 - ▶ VPA must be stored for reporting and sub-system interface requirements.
 - ▶ VPA cannot be applied towards dental premiums.
 - ▶ VPA will not be refunded for partial months due to termination or Change of Circumstance.
 - ▶ VPA will be distributed across multiple QHPs as is defined by the rules for distributing Federal APTC.
- Vermont Cost Sharing Reduction
 - ▶ Follows the same eligibility rules as the Federal CSR.
 - ▶ Vermont Cost Sharing Reduction only applies to individuals between 200-300% FPL.

- ▶ Increase the Actuarial Value of the silver plan or silver plan variation for Vermonters up to 300% FPL. Using the adjustments shown below:

FPL	ACA Actuarial Value	Vermont Adjusted Actuarial Value
200% – 250%	73%	77%
250% - 300%	70%	73%

- ▶ If the ACA Actuarial Value is greater than or equal to the Vermont Adjusted Actuarial Value the ACA cost sharing actuarial value will override the Adjusted Actuarial Value.
- ▶ If the ACA Actuarial Value is lesser than the Vermont Adjusted Actuarial Value; the Vermont Adjusted Actuarial Value will override the ACA Actuarial Value.
- ▶ The delta between the Cost Sharing between using the ACA Actuarial Value and the Vermont Adjusted Actuarial Value is the Vermont Cost Sharing Reduction.
- ▶ Vermont Cost Sharing Reduction must be stored for reporting and sub-system interface requirements

Policy Decisions

Date	Item	Policy Decision
	State Premium Assistance	Individual must accept the State Premium Assistance that is calculated.

References

- D-14 Functional Requirements Document (previously named F-14 Requirements Traceability Matrix (RTM)) which includes requirements..
- OneGate Individuals and Families Portal Experience User Guide
- OneGate Brokers and Navigators Portal Experience User Guide
- Benaissance Service Interface Specifications
- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines
- State of Vermont Department of Vermont Health Access Vermont Health Connect – Individual and Small Business Enrollment and Billing Timelines V0.9
- Standard Companion Guide – Health Insurance Exchange Payments v2.2
- Premiums ACA and VT.xls
- 2013 Premiums ACA 1-4 person households.xls
- Vermont's Cost Sharing Assistance Proposal

21.7.5 Payment Discrepancies and Termination FSD

Overview:

This document will encompass the following areas:

- Invoice discrepancy
- Termination notification

Payment Discrepancies Diagram

Business Process Diagram

The following two exhibits are the business process diagrams for individual and employer payment discrepancy resolution.

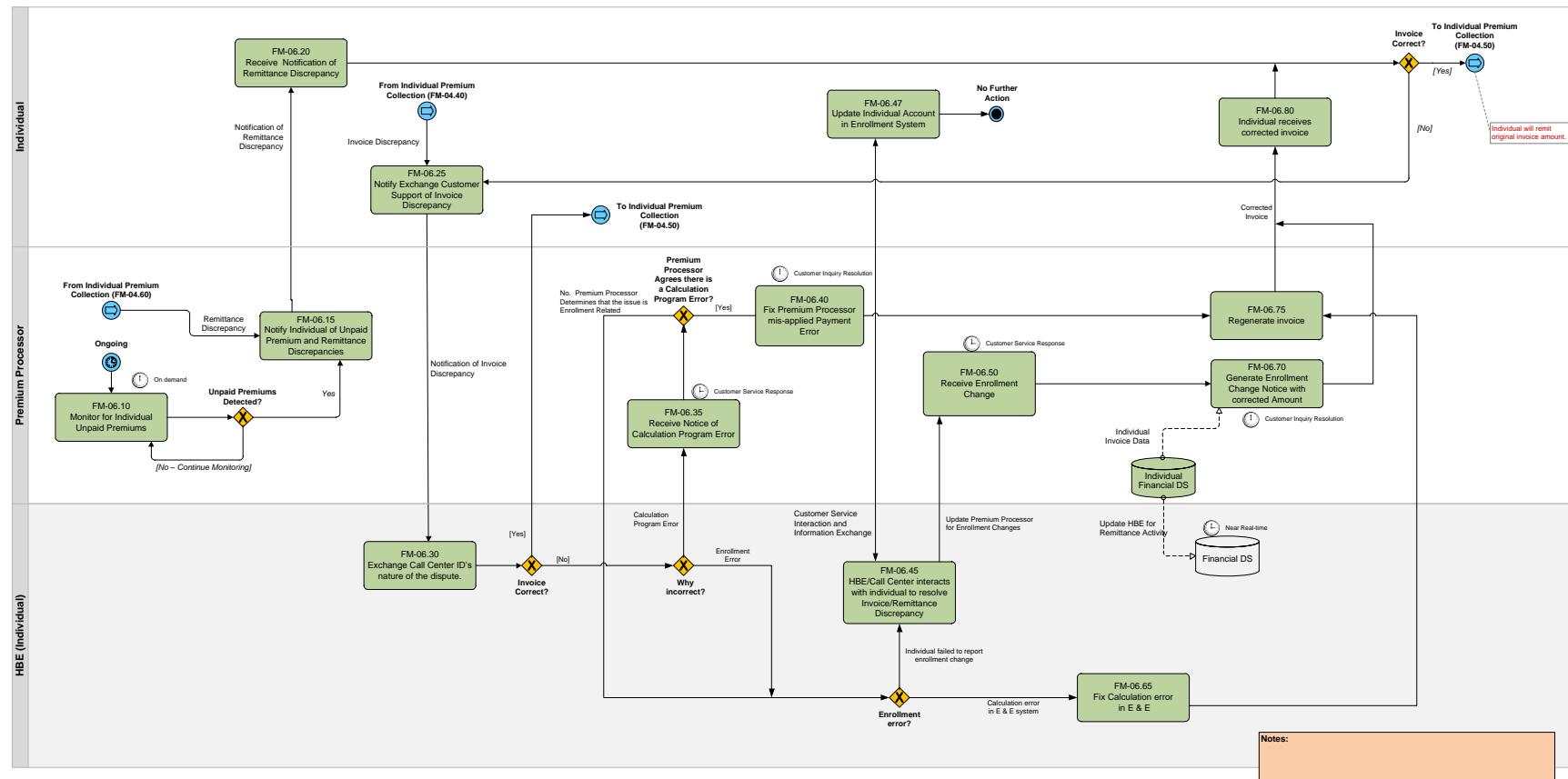
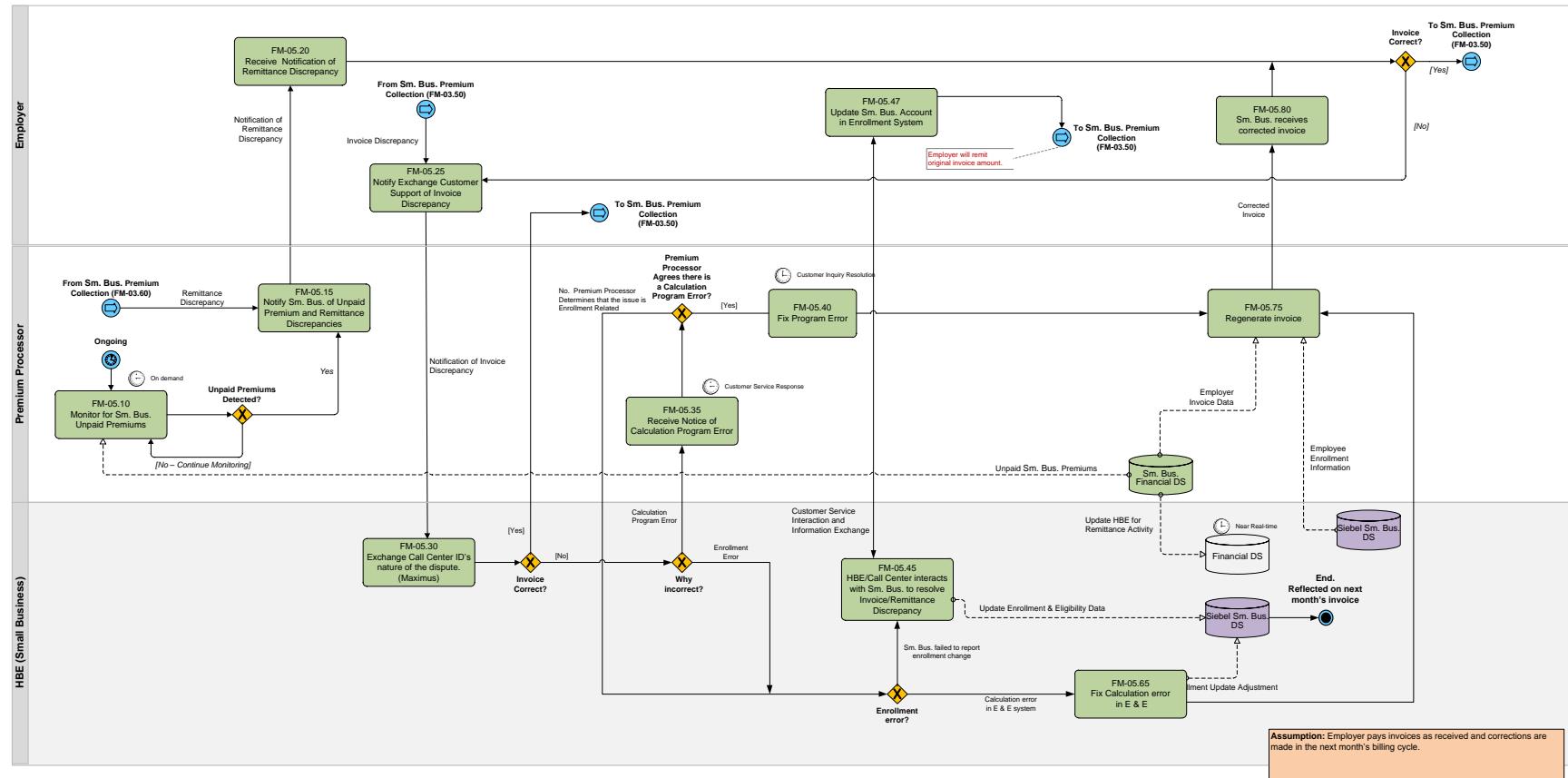
Exhibit 169: Individual Premium Discrepancy Resolution


Exhibit 170: Employer Premium Discrepancy Resolution


Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 171: Payment Discrepancies and Termination Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
New-103	Send termination notification to the Premium Processor.	Validated	This will be handled via the VHC Portal under the following conditions. When the individual chooses to change their coverage a message will be sent to the premium processor to effectively change (terminate) coverage. When the Carriers send a termination 834 file to the VHC. The VHC will then send msg to the Premium Processor.	
PPRFP-023	Receive termination notification from the Issuer and the State's Medicaid Business Office.	Validated	Carriers send a termination 834 file to the VHC. The VHC will update the subscriber's record. Will mark them as no longer active on the VHC	
FM-045	Provide invoice discrepancy notification capabilities for Individual to VHC.	Validated	This is to be handled via the VHC Portal my messages or the individual can contact the call center via telephone or mail. Premium Processor will deliver in a nightly upload all documentation that is unidentifiable. In those documents items that have handwritten notes will be routed to a work queue for an individual in the call center to work.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-059	Receive Small Business invoice discrepancy notification.	Validated	<p>This is to be handled via the VHC Portal my messages or the individual can contact the call center via telephone or mail.</p> <p>Also Premium Processor will deliver in a nightly upload all documentation that is unidentifiable. In those documents items that have handwritten notes will be routed to a work queue for an individual in the call center to work.</p>	
FM-082	Receive electronic or telephonic notification of discrepancy from Issuer.	Validated	This will process will be managed via the call center representative either via telephone or work queue.	
FM-018	Update Individual Eligibility and Enrollment database to reflect discrepancy resolution between CMS, Issuer, HBE and Premium Processor	Validated	This will be handled either by an individual or Call Center representative making an update to the enrollment through the portal. For example, a discrepancy of amount due that would be updated in the enrollment database, might be the removal of a household member that has continued to appear on the invoice.	
FM-027	Provide functionality that allows a Small Business to create a notification that invoice discrepancy exists.	Validated	This will be handled via the VHC Portal my requests functionality	
FM-061	Notify authorized users of the Small Business reported discrepancy.	Validated	Handled via the call center for discrepancy that originated within the VHC	
FM-075	Notify authorized users of the reported Individual or Family Unit discrepancy.	Validated	Handled via the call center for discrepancy that originated within the VHC	
New-106	Individual - Receive notification of termination from Issuers	Validated	This will be handled based on parameters set in the Billing timelines document. Issuers must report terminations effective the previous day to the VHC by 834 "file" no later than 12:00 PM on the first day of the month.	
New-107	Individual - Send notification of termination to Premium Processor	Validated	VHC will send notification to the premium processor	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
New-108	Small Business - Receive notification of termination from Issuers	Validated	This will be handled based on parameters set in the Billing timelines document. Issuers must report terminations effective the previous day to the VHC by 834 "file" no later than 12:00 PM on the first day of the month.	
New-109	Small Business - Send notification of termination to Premium Processor	Validated	VHC will send notification to the premium processor	
New-013	The Exchange system shall provide real-time access to financial data to support Exchange operations including real-time customer service and self-service.	Validated	This would be a login to the Premium Processor for designated VHC personnel.	
FM-062	Provide capability for small businesses to update small business account and make adjustments.	Validated	This would be handled via the My Account page in the VHC Portal.	

Key Assumptions and Considerations

Assumptions

The individual, small business or Customer Service Representative must have a valid account on the VHC.

Functional Considerations

The following functional items considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the VHC Portal with the role of individual and a login with the appropriate role in Siebel.
- The individual must choose one of 5 roles – Individual, Employee, Employer, Navigator and Broker (Additional roles currently under review and analysis include: Certified Application Counselor, Authorized User, and Alternate Reporter)
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Portal
- Oracle Identity Management Suite
- Renaissance - Premium Processor
- eCM – WebCenter Content – for image display

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all (# TBD) identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test conditions for the portal login.
- The system must have the connection to Benaissance to allow for ACH, credit/debit card authentication in order to process electronic online payment methods.
- The system must have connection to eCM in order to bring up images.

Termination and Notices for Payments Design Details

Interfaces and Data Elements

- Connection to Benaissance system
- Connection to eCM

Data - References

Logic for timing of terminations and notices may be found in:

State of Vermont Department of Vermont Health Access Vermont Health Connect – Individual and Small Business Enrollment and Billing Timelines.

Reports and Notices Generated

Activity log information will be able to be extracted from Oracle Identity Manager on an as-needed basis.

User Interface

Sample Scenarios - TBD

Business Rules

- See above for rules for screen design.
- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/loss employment.

References

- The D-14 Functional Requirements Document
- OneGate Individuals and Families Portal Experience User Guide
- OneGate Brokers and Navigators Portal Experience User Guide
- Benaissance Service Interface Specifications

- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit VHC – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines
- State of Vermont Department of Vermont Health Access Vermont Health Connect – Individual and Small Business Enrollment and Billing Timelines V0.9
- Standard Companion Guide – Health Insurance Exchange Payments v2.2

21.7.6 Portal Payment History FSD

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Portal Payment History Setup Process

Business Process Diagram

The Portal Payments History describes the system functionality that manages how an individual, and/or a small business that has chosen to enroll with VHC, will view their payment history.

Exhibit 172: Business Process Flow – Portal Payment History



Requirements Addressed

This Exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 173: Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-044	Provide the ability for an individual to view their invoice online.	Met	New screen to be created with access to invoice	
FM-053	Provide the ability for individual users to view payment history and data.	Met	New screen to be created with history data	
FM-033	Provide the ability for small businesses to view payment history and data.	Met	New screen to be created with history data	

Key Assumptions and Considerations

Assumptions

The individual or small business must have a valid account on the VHC.

The individual or small business will have a valid billing address or mailing address in order to establish a method of payment on the VHC. The individual or small business may choose to use a Navigator to assist and may use the Navigator’s address if necessary.

Functional Considerations

The following functional items must be considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the Portal with the role of individual and a login with the appropriate role in Siebel.
- The individual must choose one of five roles; Individual, Employee, Employer, Navigator and Broker. Additional roles currently under review and analysis include: Certified Counselor (Assister), Authorized User, and Alternate Reporter.
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Portal
- Oracle Identity Management Suite
- Benaissance - Premium Processor
- eCM – WebCenter Content, for image display

New Testing Considerations

The following testing items must be considered:

- The tester must have the capability to log on as all identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have the capability to login to Siebel as all identified roles finalized by the SOV.
- The tester must test conditions for the portal login.
- The system must have the connection to Benaissance to allow for ACH and credit/debit card authentication in order to process electronic online payment methods.
- The system must have connection to eCM in order to bring up images.

Portal Payment Design Details

Interfaces and Data Elements

- Connection to Benaissance system
- Connection to eCM

Data

Data for the following screens:

Data	Captured In	Stored In
Plan Information	Portal/OneGate	Siebel
Payment Preferences	Portal/CGI	Siebel
Payment History	Benaissance	Siebel
Images (payment documents)	Benaissance	eCM Content Manager

Reports and Notices Generated

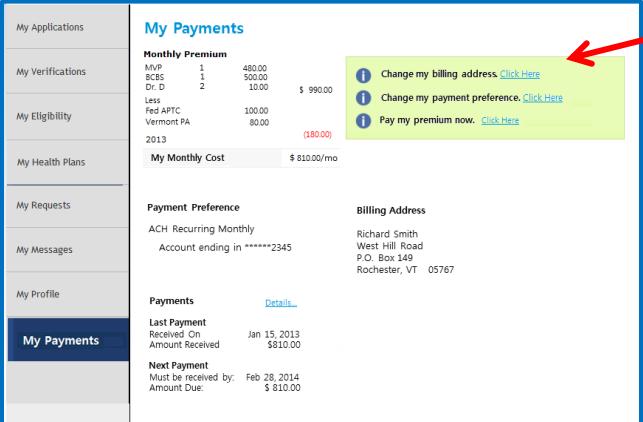
- Not Applicable

User Interface (New Screens)

Work Flow/Scenarios

Exhibit 174: Individual View Payment History

Step 1 – Access My Payment History Screen/Tab	Notes – Business Rules
	<p>My Payments screen - zones</p> <p>Upper Level – summary</p> <p>Upper Right - change information links</p> <p>Bottom section - High level payment history and payment preference information</p> <p>Payment History</p>



My Payments

Monthly Premium

MVR	1	480.00
BCBS	1	500.00
Dr. O	2	10.00
Less		\$ 990.00
APC		100.00
Vermont PA		80.00
		(180.00)
2013		

My Monthly Cost \$ 810.00/mo

Payment Preference

ACH Recurring Monthly
Account ending in *****2345

Payments

Last Payment
Received On: Jan 15, 2013
Amount Received: \$810.00

Next Payment
Must be received by: Feb 28, 2014
Amount Due: \$ 810.00

[Change my billing address. Click Here](#)
[Change my payment preference. Click Here](#)
[Pay my premium now. Click Here](#)

Showing Invoice date and amount

Payments

Link to where user can pull up an imaged copy of the invoice. Link is disabled if image is not yet available.

Likeness ONLY – Final Version TBD

Data from Siebel will be used in order to populate this Window

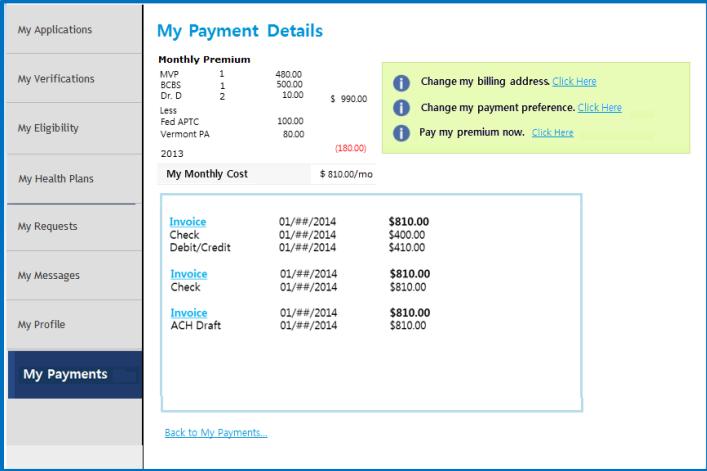
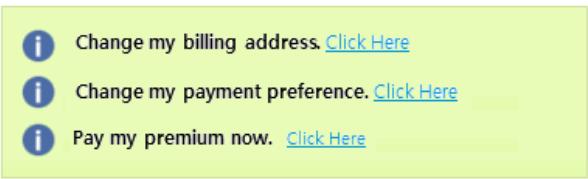
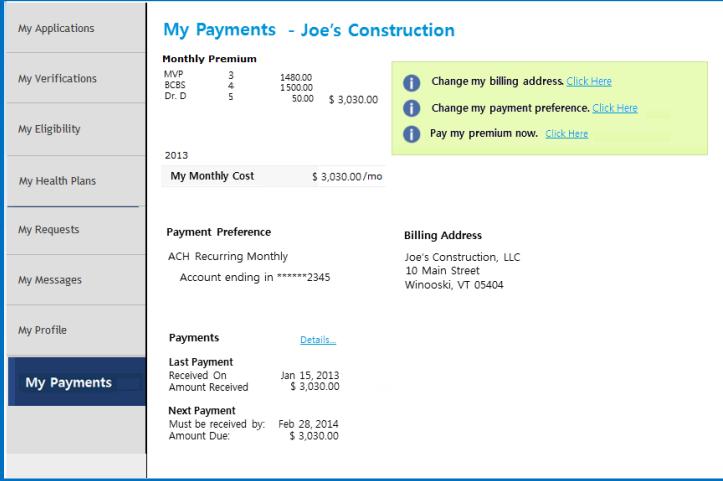
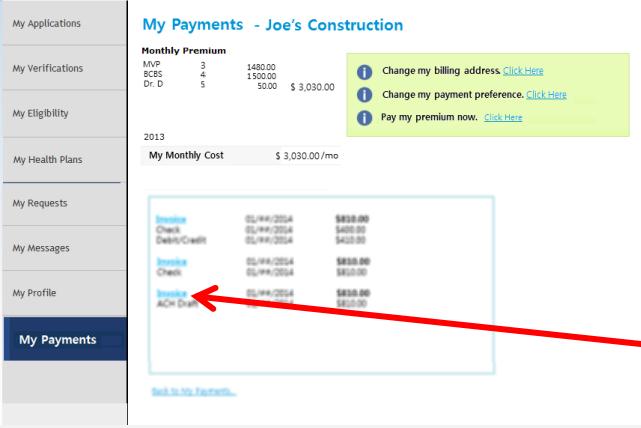
Step 2 – Payment Details Screen		Notes – Business Rules
 <p>Likeness ONLY – Final Version TBD</p>		<p>Payment details screen - zones</p> <p>Upper Level – summary</p> <p>Upper Right - change information links</p> <p>Boxed section - High level payment history</p> <p>Payment History</p> <p>Showing Invoice date and amount</p> <p>Payments</p> <p>Link to where user can pull up an imaged copy of the invoice.</p> <p>Link is disabled if image is not yet available.</p>
<p>Data from Siebel in order to populate this Window</p>		

Exhibit 175: Access Links to Change Payment Information

Change Payment Details Screen	Notes – Business Rules
 <p>Likeness ONLY – Final Version TBD</p>	<p>Change Information Links</p> <p>Allows user to access the Payment Pages in order to make desired changes or pay their premium.</p>

Workflow 2 – Small Business

Small Business will follow the same approach to the Payment History.

Step 1 – Access My Payment History Screen/Tab	Notes – Business Rules
 <p>Likeness ONLY – Final Version TBD</p>	<p>My Payments screen - zones</p> <ul style="list-style-type: none"> Upper Level – summary Upper Right - change information links Bottom section - High level payment history and payment preference information. Link to more detail. <p>Note: The Header displays the Business name to distinguish from an individual exchange account.</p>
Data from Siebel in order to populate this Window	
Step 2 – Payment Details Screen	Notes – Business Rules
 <p>Likeness ONLY – Final Version TBD</p>	<p>Payment details screen - zones</p> <ul style="list-style-type: none"> Upper Level – summary Upper Right - change information links Boxed section - High level payment history <p>Payment History</p> <p>Showing Invoice date and amount</p> <p>Payments</p> <p>Link to where user can pull up an imaged copy of the invoice.</p> <p>Link is disabled if image is not yet available</p>
Data from Siebel in order to populate this Window	

Use case general flow:

Decides method to pay -> Enters payment information -> Confirms payment -> Informed of payment complete.

Individual		
Scenario	Description	Data Txns Achieved
	Individual wants to make sure ACH draft has been applied to their premium	
	Individual wants to see when payment is due	
	Individual wants to make a payment in advance of when ACH would occur	
Small Business		
Scenario	Description	Data Txns Achieved
	Employer wishes to see what is due	
	Employee has come to employer with a notice that they are getting terminated. Employer wishes to check the account before calling customer service	

Note: Additional flows for payments received outlined in:

Premium Processor Individual

Premium Processor Small Business

Business Rules

- See above for rules for screen design
- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/loss employment.

Policy Decisions

Date	Item	Policy Decision
05.21.2013	Payment received date will be based on post mark date of the envelope or ACH draw date or date of Debit/Credit card transaction.	See Most recent version of Billing Timelines document

References

- The D-14 Functional Requirements Document which includes the requirements.
- OneGate Individuals and Families Portal Experience User Guide

- OneGate Brokers and Navigators Portal Experience User Guide
- Renaissance Service Interface Specifications
- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines
- State of Vermont Department of Vermont Health Access Vermont Health Connect – Individual and Small Business Enrollment and Billing Timelines V0.9

21.7.7 Call Center Payment History FSD

Attendee/Contributor(s) List

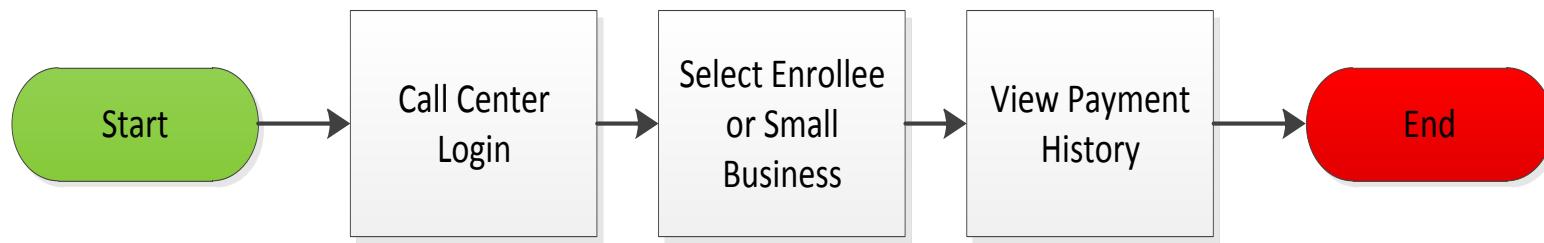
Name	Organization	Email
Cindy Lou Chaffee	ESD Regional Manager	

Call Center Payment History Setup Process

Business Process Diagram

The Call Center Payments History describes the system functionality that manages how a Call Center representative will view payment history within the VHC.

Exhibit 176: Business Process Flow



Requirements Addressed

This exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 177: Requirements Addressed – Call Center Payment History

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-060	Provide inquiry screens to research the Small Business discrepancy	Validated	Handled via the Call Center Component of the VHC utilizing data within both the Seibel data store as well as the eCM Content Manager for document images.	
FM-074	Provide inquiry screens to research the individual and family units discrepancy	Validated	Handled via the Call Center Component of the VHC utilizing data within both the Seibel data store as well as the eCM Content Manager for document images.	
FM-085	The system will provide screens to update Exchange records with corrected invoice / payment information for Issuers, Small Businesses, or Individual (including Family Unit) records.	Validated	<p>Handled via the Call Center Component of the VHC utilizing data within both the Seibel data store as well as the eCM Content Manager for document images.</p> <p>No updating will be allowed from the Call Center. In the event of an error (e.g. the System shows record of a payment of \$50.00 – scanned image shows check of \$500.00), the Call Center rep will have to call Benaissance rep to have the correction made.</p> <p>Premium Processor then transmits that update via the DDT to the VHC so that it may be reflected to the individuals and / small business account via the Portal or via the Call Center screens.</p>	
New-004	The Exchange System will provide the tools and information required to support the audit of the financial aggregate report from the General Ledger through to the Premium Processor financial transactions.	Validated	This will be made available via a url login for the VHC Comptroller to facilitate auditing purposes.	

Key Assumptions and Considerations

Assumptions

The individual or small business must have a valid account on the VHC.

The individual or small business will have a valid billing address or mailing address in order to establish a method of payment on the VHC. The individual or small business may choose to use a Navigator to assist and may use the Navigator's address if necessary.

Functional Considerations

The following functional items must be considered:

- The individual must choose one of five roles – Individual, Employee, Employer, Navigator and Broker.
Note: additional roles currently under review and analysis include: Certified Application Counselor, Authorized User, and Alternate Reporter.
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Portal
- Oracle Identity Management Suite
- Benaissance - Premium Processor
- eCM – WebCenter Content – for image display

New Testing considerations

The following testing items must be considered:

- The tester must have the capability to log on as all identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
The tester must test condition for the portal login.
- The system must have the connection to Benaissance to allow for ACH, credit/debit card authentication in order to process electronic online payment methods
- The system must have connection to eCM in order to bring up images.

Call Center Payment Inquiry Design Details

Interfaces and Data Elements

- Connection to the Exchange data store
- Connection to eCM
- Data uploaded from Benaissance system DDT

Data

Data for these screens:

Data Category	Capture	Data Element	Where Stored
Plan Information	Portal	Choice	Siebel
Payment Preferences	Portal/Exchange	Choice – ACH-Mail Address	Siebel
Payment History	Premium Processor	Previous Balance Payment Thru Balance Current Charges Total amount Due Payment Due Date Summary Breakdown - TBD VT Prem Assist - TBD Fed APTC - TBD	Siebel
Images (payment documents)	Benaissance	Invoice Coupon Email Envelope Other	eCM Content Manager

Reports and Notices Generated

Activity log information will be able to be extracted from Oracle Identity Manager on an as needed basis.

User Interface (New Screens)

Work Flow/Scenarios

Approach

- 1 SUMM - Premium Account Summary
- 2 PERS - Premium Person Detail
- 3 BILL - Billing Detail
- 4 COLL - Collection and Distribution Detail History

Where applicable, the Exchange will offer a comparable set of Payment History Screens as to what is available in the current Access System (shown above) used by the Call Center for premium processing information.

Exhibit 178: Workflow 1 – Call Center Access Payment History Screen

Screen/Tab							Notes – Business Rules																																																																																																										
09/25/08 10:40 PREMIUM ACCOUNT SUMMARY ASQ3PS1 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Individuals:</td> <td style="width: 15%;">DrD</td> <td style="width: 15%;">VHAP</td> <td style="width: 15%;">VRX/ VPh1</td> <td style="width: 15%;">VS/ VPh2</td> <td style="width: 15%;">VSX/ VPh3</td> <td style="width: 15%;">CHAP</td> <td></td> </tr> <tr> <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Premium OWED</td> <td></td> <td>78.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>-Orig Prem</td> <td></td> <td>78.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>+/-Adjstmnt</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Amount PAID</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Balance DUE</td> <td></td> <td>78.00</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="8"><hr/></td></tr> <tr> <td colspan="8">Transactions Applied to This Month</td></tr> <tr> <td>Txn</td><td>Process</td><td>Txn</td><td>VRX/</td><td>VS/</td><td>VSX/</td><td>+/-</td><td></td></tr> <tr> <td>Total</td><td>Date</td><td>Typ</td><td>DrD</td><td>VPh1</td><td>VPh2</td><td>VPh3</td><td>CHAP Credit</td></tr> </table>		Individuals:	DrD	VHAP	VRX/ VPh1	VS/ VPh2	VSX/ VPh3	CHAP			2							Premium OWED		78.00						-Orig Prem		78.00						+/-Adjstmnt								Amount PAID								Balance DUE		78.00						<hr/>								Transactions Applied to This Month								Txn	Process	Txn	VRX/	VS/	VSX/	+/-		Total	Date	Typ	DrD	VPh1	VPh2	VPh3	CHAP Credit																								
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Note: This is form ACCESS, it is NOT intended design for the VTC. The VTC design is still to be determined.							The SUMM screen provides a summary of billing information including date billed and amount, how many household individuals have bills in that month and for which programs. Credit balances will also show on this screen.																																																																																																										
09/25/08 10:47 PREMIUM PERSON DETAILS ASQ3PS2 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Sel</td> <td style="width: 15%;">Role**</td> <td style="width: 15%;">SSN **</td> <td style="width: 15%;">** Name **</td> <td style="width: 15%;">Bill Type</td> <td style="width: 15%;">Premium Owed</td> <td style="width: 15%;">Paid Due</td> <td></td> </tr> <tr> <td>01</td> <td></td> <td>07777770</td> <td>JEANETTE</td> <td>Initial</td> <td>39.00</td> <td>39.00</td> <td></td> </tr> <tr> <td>03</td> <td></td> <td>07777771</td> <td>PHILIP</td> <td>Initial</td> <td>39.00</td> <td>39.00</td> <td></td> </tr> </table>		Sel	Role**	SSN **	** Name **	Bill Type	Premium Owed	Paid Due		01		07777770	JEANETTE	Initial	39.00	39.00		03		07777771	PHILIP	Initial	39.00	39.00																																																																																									
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03		07777771	PHILIP	Initial	39.00	39.00																																																																																																											
Note: This is form ACCESS, it is NOT intended design for the VTC. The VTC design is still to be determined.							The Exchange will offer a similar screen to show the members in a household and the premium breakdown by insurance carrier. However there will be no capability to change the distribution of a payment. This is NOT an option.																																																																																																										
09/25/08 10:52 PERSON LEVEL (Non-receipt) Account Adjustments ASQ3PS5A <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Household:</td> <td style="width: 15%;">DRD</td> <td style="width: 15%;">VHAP</td> <td style="width: 15%;">VRX/VPh1</td> <td style="width: 15%;">VS/VPh2</td> <td style="width: 15%;">VSX/VPh3</td> <td style="width: 15%;">CHAP</td> <td style="width: 15%;">TOTALS</td> </tr> <tr> <td>OWED</td> <td></td> <td>78.00</td> <td></td> <td></td> <td></td> <td></td> <td>78.00</td> </tr> <tr> <td>PAID</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>BALANCE</td> <td></td> <td>78.00</td> <td></td> <td></td> <td></td> <td></td> <td>78.00</td> </tr> <tr> <td colspan="8"><hr/></td></tr> <tr> <td colspan="8">REASON: <input checked="" type="radio"/> A Change Premium Owed Amt</td></tr> <tr> <td colspan="8"><input type="radio"/> B Change Premium Paid Amt</td></tr> <tr> <td colspan="8"><input type="radio"/> C Fair Hearing Decision</td></tr> <tr> <td colspan="8"><hr/></td></tr> <tr> <td colspan="8">PER PERSON: Original Revised CREDIT:</td></tr> <tr> <td>Name</td><td>Prog</td><td>Owed</td><td>Paid</td><td>Balance</td><td>Owed</td><td>Paid</td><td>Balance</td></tr> <tr> <td>JEANETTE</td><td>VHAP</td><td>39.00</td><td></td><td>39.00</td><td>39.00</td><td></td><td>39.00</td></tr> <tr> <td colspan="8"><hr/></td></tr> <tr> <td colspan="8">HELP=Shift F12 CREDIT:</td></tr> </table>		Household:	DRD	VHAP	VRX/VPh1	VS/VPh2	VSX/VPh3	CHAP	TOTALS	OWED		78.00					78.00	PAID								BALANCE		78.00					78.00	<hr/>								REASON: <input checked="" type="radio"/> A Change Premium Owed Amt								<input type="radio"/> B Change Premium Paid Amt								<input type="radio"/> C Fair Hearing Decision								<hr/>								PER PERSON: Original Revised CREDIT:								Name	Prog	Owed	Paid	Balance	Owed	Paid	Balance	JEANETTE	VHAP	39.00		39.00	39.00		39.00	<hr/>								HELP=Shift F12 CREDIT:							
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This is the screen COPS uses to make adjustments to an individual's premium.

09/25/08	PREMIUM ACCOUNT BILLING	ASQ3PS3
Select Bill Type sent on MM/DD/YYYY Reprint Initial 05/02/2007		

Note: This is form ACCESS, it is NOT intended design for the VTC. The VTC design is still to be determined.

This is the summary list of bills sent.

09/25/08 10:56	PREMIUM ACCOUNT BILLING DETAIL	ASQ3PS3A
Initial		
Previous Balance	Payment thru Balance	Current Charges
.00	05/02/2007 .00	78.00
Total Amount Due		
		78.00
Payment Due Date		
		06/15/2007
Sched Reprint		
SUMMARY OF CURRENT CHARGES		
VHAP for JEANETTE AKITA		39.00
VHAP for PHILIP MALAMUTE		39.00
Total Current Charges		\$ 78.00

Note: This is form ACCESS, it is NOT intended design for the VTC. The VTC design is still to be determined.

This replicates the bill as the individual sees it. This screen lists current and previous balances.

PREMIUM COLLECTION AND DISTRIBUTION HISTORY										ASQ3PS4
Period	Txn	Process	Txn	VRX/	VS/	VSX/	+/-			
Date	Amt	Date	Typ	DrD	VHAP	VPh1	VPh2	VPh3	CHAP	Credit
02/12	33.00	01/16/12 E			33.00					
			ACH PYMT	(01/15/2012)						
01/12	33.00	12/15/11 E			33.00					
			ACH PYMT	(12/15/2011)						
12/11	33.00	11/15/11 E			33.00					
			ACH PYMT	(11/15/2011)						
11/11	17.00	10/17/11 E			33.00				16.00-	
			ACH PYMT	(10/15/2011)						
10/11	.00	09/12/11 A			33.00				33.00-	
			Credit Distributed							
08/11	.00	09/11/11 O			49.00-					
			Decrease Owed Amount							
08/11	.00	09/11/11 P			49.00-				49.00	
			Redistribute Paid Amount /		49.00 Credit					

Note: This is form ACCESS, it is NOT intended design for the VTC. The VTC design is still to be determined.

Exchange will provide a similar list by which the Call Center representative can see the list and drill further into the details of a particular bill/invoice.

To be built.

Approach 1 -

Utilizing the base data elements currently in the Access system. These elements will provide the minimum viable solution for initial launch.

Approach 2 –

Display the imaged copy of the invoice from the eCM WebCenter Content

To be built – how premium dollars were applied across the programs within the bill.

Utilizing the base data elements currently in the Access system. These elements will provide the minimum viable solution for initial launch.

Period Date-Txn Amt-Process Date-Txn Type – Program (e.g. QHP1 DHP2 DrD)

Small Business –

TBD

Screens will need to be reviewed to determine accommodations that may be necessary to the small business customers.

Exhibit 179: Workflow/Scenarios – Initial List 1

Individual		
Scenario	Description	Data Txns Achieved
	Individual wants to make sure ACH draft has been applied to their premium. They do not see it in their history.	
	Client calls and says their check has cleared their bank but it's not showing up the system To research the Call Center obtains info such as check number, date, amount and email Lockbox where they will research and confirm whether or not it was received and just hadn't posted yet. If they are not showing it in our records we ask the client to fax a copy of the cleared check and fax it to the Lockbox so that we can get the coverage started while they research what happened to the check. These examples usually happen at healthcare closure date or first business day of the month. (scenario provided by Cindy Lou Chaffee –ESD Regional Manager)	
Small Business		
Scenario	Description	Data Txns Achieved
	Employer wishes to see what is due	
	Employee has come to employer with a notice that they are getting terminated. Employer wishes to check the account before calling customer service	

Business Rules

- Refer to the previous section for the rules screen design.
- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/loss employment.

References

- The D-14 Functional Requirements Document (previously named F-14 Requirements Traceability Matrix (RTM)) which includes requirements addressed.

- OneGate Individuals and Families Portal Experience User Guide
 - OneGate Brokers and Navigators Portal Experience User Guide
 - Benaissance Service Interface Specifications
 - State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
 - Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
 - Vermont Statutes – NSF - § 404. Insufficient funds; penalty
 - ▶ <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
 - UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines
- Premium Refresher Training March 6, 2013 Manual – provided by Cindy Lou Chaffee – ESD Regional Manager

21.7.8 Access to Images FSD

Attendee/Contributor(s) List

Name	Organization	Email
Indranil Banerjee – Alex Henning	CGI	
Hira Dedhia	Oracle	
Liz Kerrigan – Steve Cudly – James Kuruivila	Benaissance	

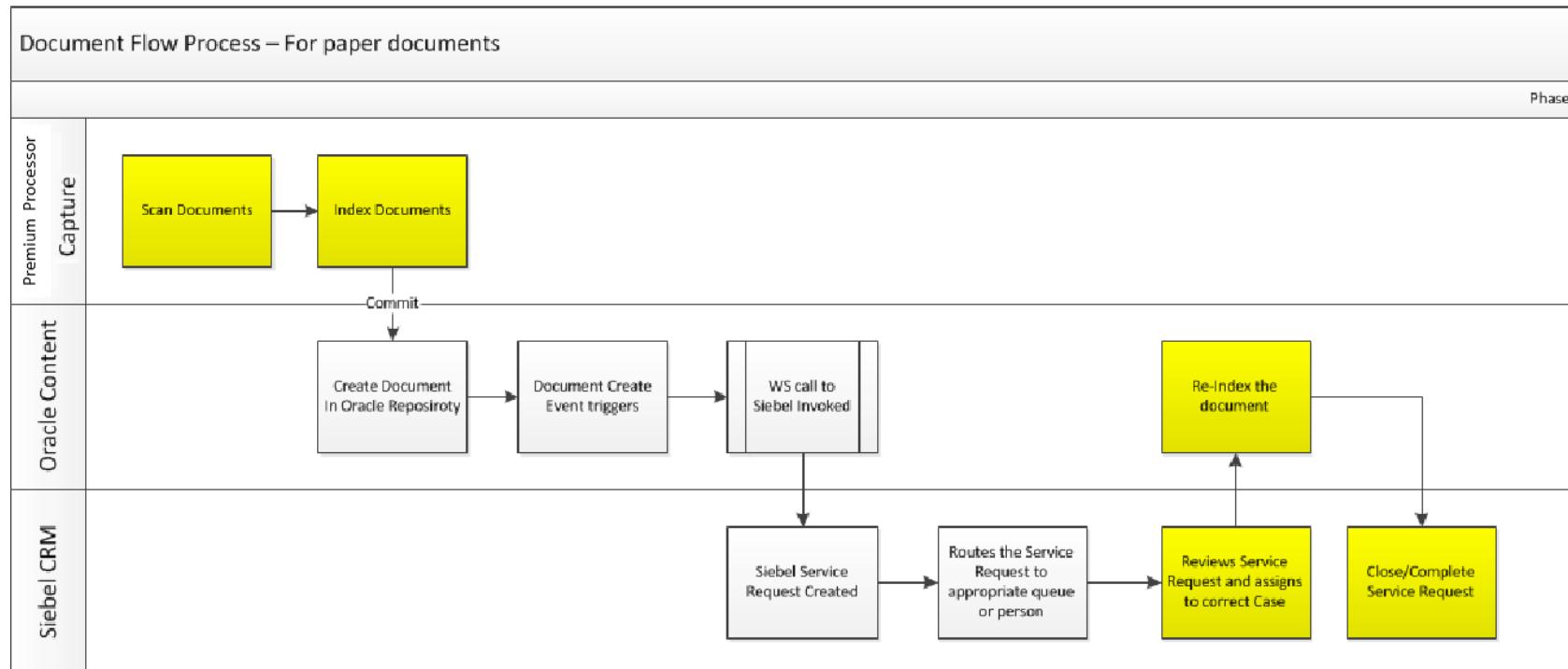
Overview

Premium Processing Document Images will be uploaded to the Exchange eCM Content Manager. These documents will be indexed in order for fast retrieval for viewing by both end users/subscribers of the Exchange as well as Call Center Representatives in order to research payment activity. Some images will be delivered to eCM with distinct indices, while others will come as a file of several images.

Premium Processing Images as they Relate to Payments Diagram

Business Process Diagram

The following describes the system functionality that will manage how an individual, small business, or call center representative will access images related to Premium Processing.

Exhibit 180: Access to Images Business Process Flow


Yellow Box:
Manual Step

Gray Box:
Automated Step

Requirements Addressed

The following exhibit includes requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 181: Access to Images Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-044	Provide the ability for an individual to view their invoice online.	Met	Images from Premium Processor will be uploaded daily to the eCM in order to provide online access and viewing.	

Key Assumptions and Considerations

Assumptions

- The individual, small business, or Customer Service Representative must have a valid account in on the VHC.
- Images have been uploaded to eCM – Content Manager

Functional Considerations

The following functional items considered:

- If an individual is also a State of Vermont (SOV) worker, they will have two distinct logins; a login for the Portal with the role of individual and a login with the appropriate role in Siebel.
- The individual must choose one of 5 roles – Individual, Employee, Employer, Navigator and Broker (roles in review and analysis include: Certified Counselor (Assister), Authorized User, and Alternate Reporter.
- Alternate Reporter (maybe) in order to establish an account for the VHC Portal.
- Access granted to the worker who is performing case management will be done according to the roles matrix as finalized by the SOV.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate/Liferay
- Oracle Identity Management Suite
- Renaissance - Premium Processor
- eCM – WebCenter Content – for image display

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all (# TBD) identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login
- The system must have the connection to Benaissance to allow for ACH, credit/debit card authentication in order to process electronic online payment methods
- The system must have connection to eCM in order to bring up images.

Exhibit 182: Access to Images Test Conditions

Functional Area	Technical Component	Usage Scenario

Portal Payment Design Details

Interfaces and Data Elements

- Connection to Benaissance system
- Connection to eCM

Data

Data for these screens:

Data	Capture	Where Stored
Images (payment documents)	Benaissance	eCM Content Manager
Indices	Benaissance	eCM Content Manager Siebel

Indices

Indices	Description	Captured	Passed To
Subscriber ID	Exchange Subscriber	Benaissance	eCM Content Manager Siebel
Payment Coupon Id	Payment coupon that is sent with the invoice and returned to the Premium Processor	Benaissance	eCM Content Manager Siebel
Check – Money Order Id		Benaissance	eCM Content Manager Siebel
Envelope	Front and Back of Envelope primary use is for the postmark date which is utilized for the Appeals process	Benaissance	eCM Content Manager Siebel
Invoice	Image of Invoice sent to subscriber	Benaissance	eCM Content Manager

Indices	Description	Captured	Passed To
			Siebel
Other Unknown by Subscriber ID	Images that cannot be categorized	Benaissance	eCM Content Manager Siebel
Other Unknown	Any information that relates to payments where the Exchange representative would be scanning in documents	Exchange	eCM Content Manager Siebel Benaissance

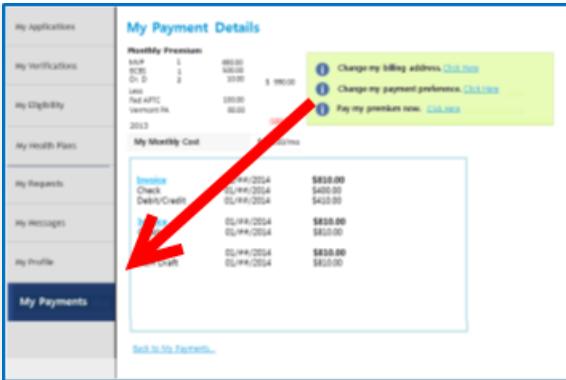
Reports and Notices Generated

- Activity log information will be able to be extracted from Oracle Identity Manager on an as-needed basis.

User Interface

Work Flow/Scenarios

Workflow 1 – Portal - View Invoice from Payment History – Individuals and Small Businesses

Access My Payment History - PORTAL Screen/Tab	Notes – Business Rules
 <p>Likeness ONLY</p> <p>Data from Siebel in order to populate this Window Data from eCM in order to pull up the image</p>	<p>My Payments screen Link to where user can pull up a imaged copy of the invoice. Link is disabled if image is not yet available</p>
	<p>Baseline Indices – see section on indices</p>

Workflow 2 – Call Center Access to images

Access to Images – CALL CENTER Screen	Notes – Business Rules
<p>1 – Work list Screen to mitigate Premium Processor Images that are unidentifiable – Under construction 2 – Call Center - Detailed Payment History Screen with access to images – Under Construction 3 – List of images by Subscriber – TBD</p>	

Access to Images – CALL CENTER Screen	Notes – Business Rules
Data from Siebel in order to populate this Window Data from eCM in order to pull the images	Baseline Indices – see section on indices

User Interface

Work Flow/Scenarios

Use case general flow:

Decides method to pay -> Enters payment information -> Confirms payment -> Informed of payment complete

Scenarios		
End User	Description	Where Accessed
Individual	Individual wants to make sure ACH draft has been applied to their premium	Portal
Small Business	Employer wishes to see what is due	Portal
Small Business	Employee has come to employer with a notice that they are getting terminated. Employer wishes to check the account before calling customer service	Portal
Call Center Provided by ESD Cindy Lou Chaffee	It isn't often but if a client calls and says their check has cleared their bank but it's not showing up in our system we get all of the info such as check number, date, amount and email Lockbox where they will research and confirm whether or not it was received and just hadn't posted yet. If they are not showing it in our records we ask the client to fax a copy of the cleared check and fax it to the Lockbox so that we can get the coverage started while they research what happened to the check. These examples usually happen at healthcare closure date or first business day of the month.	Call Center

** Additional flows for payments received outlined in:

- Premium Processor Individual
- Premium Processor Small Business

Business Rules

- See above for rules for screen design
- Brokers/Navigators need to have distinct logins to the VHC in order for certification to be documented and for their logins to be associated with individual's applications that they are providing assistance with.
- Employers need to have distinct logins to the VHC in order to establish themselves as an employer versus an employee/individual.
- Employees need to have a distinct login from an individual in order to be able to enter the VHC as one or the other in situations where they gain/loss employment.

Policy Decisions

Date	Item	Policy Decision
May 2013 M. Kristin - CGI	Images to be uploaded	ALL scanned images are to be uploaded to the exchange

References

The following exhibit lists Test Case(s) reviewed and any questions identified from the testing team:

Exhibit 183: Requirements Reviewed

Ref Code	Status	Open Action Items
EL-54	Validated	The SOV is determining the required verification needed for State of Vermont and Federal programs as part of the Notices effort. This includes an analysis of the forms to provide "proof" of verification.

- OneGate Individuals and Families Portal Experience User Guide
- OneGate Brokers and Navigators Portal Experience User Guide
- Benaissance Service Interface Specifications
- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines

21.7.9 General Ledger – VISION System FSD

Attendee/Contributor(s) List

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General Ledger

Business Process Diagram

Exhibit 184: Process Flow



Requirements Addressed

This Exhibit contains requirements which are “Met” by this functionality and requirements for which functionality is being designed or configured, and, requirements that are covered in the Business Process Diagram(s) and may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and any remaining open action items. The status of the requirement is the current status at the time of submission of this document.

Exhibit 185: Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-107	The Exchange system will summarize and apply general ledger coding to the financial transactions	Validated	Will use the State of Vermont VISION system chart of accounts for this purpose.	
New-009	The Exchange system shall provide the State transaction financial information weekly.	Validated	The State of Vermont, in conjunction with Premium Processor, will define the exact details of line items needed for reporting.	
New-016	The System shall provide Premium Processing costs to the State monthly.	Validated	The State of Vermont, in conjunction with Premium Processor, will define the exact details of line items needed for reporting.	
New-017a	The System shall provide monthly reports on credit card fees.	Validated	Any credit card fees imposed will be borne by the VHC enrollee. There will be no fees reported.	
FM-108	The Exchange system will update VISION with aggregated financial information	Validated	Information will be provided, via a file, as determined by the State of Vermont in order to update the General Ledger/VISION system on a periodic basis.	
FM-110	The Exchange will provide detail reports to support and reconcile the Exchange Annual Financial Report	Validated	Information will be provided, via a file, as determined by the State of Vermont in order to reconcile utilizing the VISION system	
FM-111	The Premium Processor shall provide annual SSAE No. 16 report to the State	Validated	Controls within the Premium Processor will be put in place to obtain SSAE 16 certification and also allow monitoring by Exchange system administrator.	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
FM-012	Update State's G/L (VISION) system with electronic Issuer Federal APTC/CSR payment data	Validated	When information is received from the Issuer as to the Federal APTC and CSR, amounts this will be stored within the Exchange in order to provide the VISION system with related line items.	

Key Assumptions and Considerations

Assumptions

All data from the premium processor is passed to the Exchange on a periodic basis including but not limited to; daily, weekly, monthly, and annually.

All data required for General Ledger reporting from the VISION or Exchange will be captured within Siebel.

Functional Considerations

The following functional items considered:

The approach is that all reporting would be managed from the State of Vermont General Ledger System, VISION. Reports anticipated to be generated out of the VISION system would include those for Federal Reporting to CMS quarterly budget and expenditures to date.

Reporting on State Premium details is also anticipated to be generated out of the VISION system. Data desired, includes but is not limited to:

- Complete financial statement that complies with GAAP standards:
 - ▶ Cash flow statement, income statement (summary level), balance sheet
 - ▶ Assets: Premium payments, cash sitting in premium processor custodial accounts books, receivables, prepaid (Monthly transaction to update balance)
 - ▶ Liabilities: Premiums owed, payables (Monthly transaction to update balance)
 - ▶ Expenses: Payments to insurance carriers, admin fee premium processor, credit card fee if applicable, broker fees if applicable
 - ▶ Revenues: Receipts from Federal APTC, individuals, small groups, State of Vermont
- VISION reporting should reconcile with Premium Processor reports

Solution / Technical Considerations

The following solution and technical items should be considered:

- Renaissance - Premium Processor
- State of Vermont – General Ledger – VISION
- Formatting for data to the VISION System will follow data as described in the Data Section of this document unless otherwise noted.

New Testing considerations

The following testing items must be considered:

- The tester must have the capability to log on as all identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have the capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test conditions for the portal login.

General Ledger Design Details

Interfaces

Not applicable.

Data

Data for consumption by the VISION system will follow this format unless otherwise noted as described in the following excerpt from "PeopleSoft Financials – Interface Transaction Loader – Incoming File Description":

Data Mapping and Business Rules

- All transaction records are fixed length, 386 characters.
- One Transaction Header record is required for each transaction type, followed by the applicable transaction lines.

Exhibit 186: Transaction Headers (For All Transaction Types)

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-19	16	CONTROL_TOTAL	Signed Number	Yes	Grand Total of the line amounts for this transaction code. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +000000000002280
20-24	5	CONTROL_LINES	Number	Yes	Total number of lines for this transaction code, left padded with 0s
25-386	362	FILLER			Fill with spaces

Exhibit 187: Transaction Lines – Payments (Voucher)

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes

Position	Length	Field Name	Type	Required	Business Rules
4-8	5	BUSINESS_UNIT	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary). If this is a payment on a contract/purchase order, then fill in with the BUSINESS_UNIT that created the PO
9-16	8	VOUCHER_ID	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
17-21	5	VOUCHER_LINE_NUM	Number	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
22	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S – Successful Load, E - Error
23-52	30	INVOICE_ID	Character	Yes	This is the Invoice number for the Payment being entered. The loader program will use this to determine how the lines will be broken into vouchers. (Shows on Advice)
53-60	8	INVOICE_DT	Date	Yes	Date on invoice or SYSDATE, Format: MMDDYYYY
61-71	11	VENDOR_ID	Character	Yes	Same Structure as the Vendor Number Today: The first 9 digits represent the vendor, and the last 2 represent the address sequence/location. As vendors are being renumbered through the conversion process, the vendor extract will assist in identifying the proper vendor.
72-76	5	PYMNT_TERMS_CD	Character	No	Payment Terms. If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in this field as well, '30' will default. If Due Date is populated, this field will not be used. Valid values include: '00' – Due Immediately, 'EOM' – Due at End of Month, '20' – Due in 20 days, '30' – Net Due in 30 days, '21030' – 2% discount if paid w/in 10 days, net due 30 days, and '30530' – 3% discount if paid within 5 days, net due 30 days. (Please provide any other terms that you need and they will be set up.) 01/2008 - jcm - Discovered that if no payment terms code and no due date, then the pay date is due immediately. We may want to change this to current dt plus 30.

Position	Length	Field Name	Type	Required	Business Rules
77-84	8	DUE_DATE	Date	No	Date used in determining when a voucher should be paid (assuming that enough budget exists). If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in the Payment Terms field, '30' day terms will default.
85-100	16	GROSS_AMT	Signed Number	Yes	Amount of this invoice line (defined as an amount requiring an accounting distribution) NOT the total invoice amount (unless the invoice contains one line/one accounting breakout). 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +0000000000002280
101	1	CHK_IND	Character	No	Identifies special handling information. Valid Values include 'A' – Attachments, 'C' – Call Department, 'D' – Return to Department and 'E' – Electronic Payment (for Towns and groups that normally receive checks)
102-116	15	QTY_VCHR	Number	No	Quantity. Last four digits represent the decimal places. For example, a quantity of 15 would be 000000000150000
117-126	10	PO_ID	Character	No	State PO Number from Purchasing, if applicable. Needed to draw against contract in Purchasing.
127-131	5	PO_LINE	Number	No	Line number on State PO from Purchasing, if applicable. Needed to draw against contract in Purchasing.
132-141	10	ASSET_PROFILE	Character	No	Asset Profile. Only required if no PO and the transaction is for the purchase of a fixed asset
142-145	4	WITHHOLDING_CD	Character	No	Type of Reportable Income for this line (no amount will be withheld), if applicable. Valid Values: '9901' – Rents/Royalties, '9906' – Medical, and '9907' - Services
146-151	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
152-156	5	FUND_CODE	Character	Yes	Accounting Distribution
157-166	10	DEPTID	Character	Yes	Accounting Distribution
167-171	5	PROGRAM_CODE	Character	No	Accounting Distribution
172-176	5	CLASS_FLD	Character	No	Accounting Distribution

Position	Length	Field Name	Type	Required	Business Rules
177-191	15	PROJECT_ID	Character	No	Accounting Distribution - Grant Information
192-221	30	DESCR	Character	No	Line Description
222-256	35	AGENCY_USE	Character	No	Same as Agency Use Code today
257-286	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
287-296	10	LOCATION	Character	No	Vendor location. Leave blank. Currently only used by Education.
297	1	SEPARATE	Character	No	Separate Payment.
298-315	18	INV_ITEM_ID	Character	No	Inventory Item Id. Used for BDA usage reporting. Format: BDA-### (ex. BDA-1, BDA-100)
316-386	71	FILLER			Fill with spaces

Note: One-Time vendor payments have a different record layout.

Exhibit 188: Transaction Lines – Cash Receipts

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-8	5	DEPOSIT_BU	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary)
9-23	15	DEPOSIT_ID	Character	Yes	Deposit Ticket Number
24-31	8	DEPOSIT_DATE	Date	Yes	Date of deposit or SYSDATE, Format: MMDDYYYY
32-36	5	BANK_CD	Character	Yes	Bank Code – Valid Values to be provided
37-40	4	BANK_ACCT_KEY	Character	Yes	Bank Account – Valid Values to be provided
41-56	16	CONTROL_AMT	Signed Number	Yes	Total Deposit Amount. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +000000000002280
57-61	5	CONTROL_CNT	Number	Yes	Total Number of Lines (accounting distributions) in this deposit
62-76	15	PAYMENT_ID	Character	Yes	Distribution Line Title

Position	Length	Field Name	Type	Required	Business Rules
77-92	16	PAYMENT_AMT	Signed Number	Yes	Distribution Line Amount. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +0000000000002280
93-98	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
99-103	5	FUND_CODE	Character	Yes	Accounting Distribution
104-113	10	DEPTID	Character	Yes	Accounting Distribution
114-118	5	PROGRAM_CODE	Character	No	Accounting Distribution
119-123	5	CLASS_FLD	Character	No	Accounting Distribution
124-138	15	PROJECT_ID	Character	No	Accounting Distribution – Grant Information
139-173	35	AGENCY_USE	Character	No	Same as Agency Use Code Today
174	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S – Successful Load, E – Error
175-204	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
205-386	182	FILLER			Fill with spaces

Exhibit 189: Transaction Lines – Receipt Refunds

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-8	5	BUSINESS_UNIT	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary)
9-16	8	VOUCHER_ID	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
17-21	5	VOUCHER_LINE_NUM	Number	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
22	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S – Successful Load, E – Error
23-52	30	INVOICE_ID	Character	Yes	This is the Invoice number for the Payment being entered. The loader program will use this to determine how the lines will be broken into vouchers. (Shows on Advice)
53-60	8	INVOICE_DT	Date	Yes	Date on invoice or SYSDATE, Format: MMDDYYYY

Position	Length	Field Name	Type	Required	Business Rules
61-71	11	VENDOR_ID	Character	Yes	Same Structure as the Vendor Number Today: The first 9 digits represent the vendor, and the last 2 represent the address sequence/location. As vendors are being renumbered through the conversion process, the vendor extract will assist in identifying the proper vendor.
72-76	5	PYMNT_TERMS_CD	Character	No	Payment Terms. If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in this field as well, '30' will default. If Due Date is populated, this field will not be used. Valid values include: '00' – Due Immediately, 'EOM' – Due at End of Month, '20' – Due in 20 days, '30' – Net Due in 30 days, '21030' – 2% discount if paid w/in 10 days, net due 30 days, and '30530' – 3% discount if paid within 5 days, net due 30 days. (Please provide any other terms that you need and they will be set up.)
77-84	8	DUE_DATE	Date	No	Date used in determining when a voucher should be paid (assuming that enough budget exists). If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in the Payment Terms field, '30' day terms will default.
85-100	16	GROSS_AMT	Signed Number	Yes	Amount of this invoice line (defined as an amount requiring an accounting distribution) NOT the total invoice amount (unless the invoice contains one line/one accounting breakout). 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +000000000002280
101	1	CHK_IND	Character	No	Identifies special handling information. Valid Values include 'A' – Attachments, 'C' – Call Department, 'D' – Return to Department and 'E' – Electronic Payment (for Towns and groups that normally receive checks)
102-116	15	QTY_VCHR	Number	No	Quantity. Last four digits represent the decimal places. For example, a quantity of 15 would be 000000000150000

Position	Length	Field Name	Type	Required	Business Rules
117-126	10	PO_ID	Character	No	State PO Number from Purchasing, if applicable. Needed to draw against contract in Purchasing.
127-131	5	PO_LINE	Number	No	Line number on State PO from Purchasing, if applicable. Needed to draw against contract in Purchasing.
132-141	10	ASSET_PROFILE	Character	No	Asset Profile. Only required if no PO and the transaction is for the purchase of a fixed asset
142-145	4	WITHHOLDING_CD	Character	No	Type of Reportable Income for this line (no amount will be withheld), if applicable. Valid Values: '9901' – Rents/Royalties, '9906' – Medical, and '9907' – Services
146-151	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
152-156	5	FUND_CODE	Character	Yes	Accounting Distribution
157-166	10	DEPTID	Character	Yes	Accounting Distribution
167-171	5	PROGRAM_CODE	Character	No	Accounting Distribution
172-176	5	CLASS_FLD	Character	No	Accounting Distribution
177-191	15	PROJECT_ID	Character	No	Accounting Distribution – Grant Information
192-221	30	DESCR	Character	No	Line Description
222-256	35	AGENCY_USE	Character	No	Same as Agency Use Code today
257-286	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
287-296	10	LOCATION	Character	No	Vendor location. Leave blank. Currently only used by Education.
297	1	SEPARATE	Character	No	Separate Payment.
298-315	18	INV_ITEM_ID	Character	No	Inventory Item Id. Used for BDA usage reporting. Format: BDA-### (ex. BDA-1, BDA-100) <i>Not Applicable for Receipt Refunds.</i>
316-386	71	FILLER			Fill with spaces

Exhibit 190: Transaction Lines – Expenditure Refunds – Credit for Future Use

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-8	5	BUSINESS_UNIT	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary)

Position	Length	Field Name	Type	Required	Business Rules
9-16	8	VOUCHER_ID	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
17-21	5	VOUCHER_LINE_NUM	Number	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
22	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S – Successful Load, E - Error
23-52	30	INVOICE_ID	Character	Yes	This is the Invoice number for the Payment being entered. The loader program will use this to determine how the lines will be broken into vouchers. (Shows on Advice)
53-60	8	INVOICE_DT	Date	Yes	Date on invoice or SYSDATE, Format: MMDDYYYY
61-71	11	VENDOR_ID	Character	Yes	Same Structure as the Vendor Number Today: The first 9 digits represent the vendor, and the last 2 represent the address sequence/location. As vendors are being renumbered through the conversion process, the vendor extract will assist in identifying the proper vendor.
72-76	5	PYMNT_TERMS_CD	Character	No	Payment Terms. If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in this field as well, '30' will default. If Due Date is populated, this field will not be used. Valid values include: '00' – Due Immediately, 'EOM' – Due at End of Month, '20' – Due in 20 days, '30' – Net Due in 30 days, '21030' – 2% discount if paid w/in 10 days, net due 30 days, and '30530' – 3% discount if paid within 5 days, net due 30 days. (Please provide any other terms that you need and they will be set up.)
77-84	8	DUE_DATE	Date	No	Date used in determining when a voucher should be paid (assuming that enough budget exists). If Due Date is not provided, the loader will take the value in the invoice date field, and add the Payment Terms Value to determine the Due Date. If no value is in the Payment Terms field, '30' day terms will default.

Position	Length	Field Name	Type	Required	Business Rules
85-100	16	GROSS_AMT	Signed Number	Yes	Amount of this invoice line (defined as an amount requiring an accounting distribution) NOT the total invoice amount (unless the invoice contains one line/one accounting breakout). 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +00000000002280
101	1	CHK_IND	Character	No	Identifies special handling information. Valid Values include 'A' – Attachments, 'C' – Call Department, 'D' – Return to Department and 'E' – Electronic Payment (for Towns and groups that normally receive checks)
102-116	15	QTY_VCHR	Number	No	Quantity. Last four digits represent the decimal places. For example, a quantity of 15 would be 000000000150000
117-126	10	PO_ID	Character	No	State PO Number from Purchasing, if applicable. Needed to draw against contract in Purchasing.
127-131	5	PO_LINE	Number	No	Line number on State PO from Purchasing, if applicable. Needed to draw against contract in Purchasing.
132-141	10	ASSET_PROFILE	Character	No	Asset Profile. Only required if no PO and the transaction is for the purchase of a fixed asset
142-145	4	WITHHOLDING_CD	Character	No	Type of Reportable Income for this line (no amount will be withheld), if applicable. Valid Values: '9901' – Rents/Royalties, '9906' – Medical, and '9907' - Services
146-151	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
152-156	5	FUND_CODE	Character	Yes	Accounting Distribution
157-166	10	DEPTID	Character	Yes	Accounting Distribution
167-171	5	PROGRAM_CODE	Character	No	Accounting Distribution
172-176	5	CLASS_FLD	Character	No	Accounting Distribution
177-191	15	PROJECT_ID	Character	No	Accounting Distribution - Grant Information
192-221	30	DESCR	Character	No	Line Description
222-256	35	AGENCY_USE	Character	No	Same as Agency Use Code today
257-286	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
287-296	10	LOCATION	Character	No	Vendor location. Leave blank. Currently only used by Education.

Position	Length	Field Name	Type	Required	Business Rules
297	1	SEPARATE	Character	No	Separate Payment.
298-315	18	INV_ITEM_ID	Character	No	Inventory Item Id. Used for BDA usage reporting. Format: BDA-### (ex. BDA-1, BDA-100) <i>Not Applicable for Expenditure Refunds.</i>
316-386	71	FILLER			Fill with spaces

Note: Needs to be a separate transaction code if cash was received.

Exhibit 191: Transaction Lines – Expenditure Refunds – Cash/Check Received

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-8	5	DEPOSIT_BU	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary)
9-23	15	DEPOSIT_ID	Character	Yes	Deposit Ticket Number
24-31	8	DEPOSIT_DATE	Date	Yes	Date of deposit or SYSDATE, Format: MMDDYYYY
32-36	5	BANK_CD	Character	Yes	Bank Code – Valid Values to be provided
37-40	4	BANK_ACCT_KEY	Character	Yes	Bank Account – Valid Values to be provided
41-56	16	CONTROL_AMT	Signed Number	Yes	Total Deposit Amount. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +000000000002280
57-61	5	CONTROL_CNT	Number	Yes	Total Number of Lines (accounting distributions) in this deposit
62-76	15	PAYMENT_ID	Character	Yes	Distribution Line Title
77-92	16	PAYMENT_AMT	Signed Number	Yes	Distribution Line Amount. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +000000000002280
93-98	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
99-103	5	FUND_CODE	Character	Yes	Accounting Distribution
104-113	10	DEPTID	Character	Yes	Accounting Distribution
114-118	5	PROGRAM_CODE	Character	No	Accounting Distribution
119-123	5	CLASS_FLD	Character	No	Accounting Distribution
124-138	15	PROJECT_ID	Character	No	Accounting Distribution - Grant Information

Position	Length	Field Name	Type	Required	Business Rules
139-173	35	AGENCY_USE	Character	No	Same as Agency Use Code Today
174	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S - Successful Load, E - Error
175-204	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
205-386	182	FILLER			Fill with spaces

Note: There needs to be a separate transaction code then if a credit was received.

Exhibit 192: Transaction Lines – Transfers

Position	Length	Field Name	Type	Required	Business Rules
1-3	3	TRANS_CODE	Character	Yes	Same as existing FINOPS Transaction Codes
4-8	5	BUSINESS_UNIT	Character	Yes	Equivalent of Organization Code today. For AOT, this should be '08100', or '08110' (AOT, AOT Proprietary)
9-18	10	JOURNAL_ID	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
19-26	8	JOURNAL_DATE	Date	No Leave Blank	Leave Blank. This will be filled in by the loader program when the line is loaded successfully
27-42	16	MONETARY_AMOUNT	Signed Number	Yes	Transfer Line Amount. 1 st position will be + or -, the last two positions will be assumed to be the cents (no decimal point necessary). For example: \$22.80 would be +00000000002280
43-48	6	ACCOUNT	Character	Yes	Accounting Distribution – Equivalent of Object Code
49-53	5	FUND_CODE	Character	Yes	Accounting Distribution
54-63	10	DEPTID	Character	Yes	Accounting Distribution
64-68	5	PROGRAM_CODE	Character	No	Accounting Distribution
69-73	5	CLASS_FLD	Character	No	Accounting Distribution
74-88	15	PROJECT_ID	Character	No	Accounting Distribution - Grant Information
89-93	5	AFFILIATE	Character	Yes	The other business unit in the transfer transaction. Required for TSF transfers only.
94-123	30	DESCR	Character	Yes	Journal Line Description.
124-131	8	VOUCHER_ID	Character	No	Enter PeopleSoft Voucher Number if transfer relates to a previous voucher

Position	Length	Field Name	Type	Required	Business Rules
132	1	INDICATOR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program. Values: S - Successful Load, E - Error
133-167	35	AGENCY_USE	Character	No	Same as Agency Use Code today
168-197	30	ERROR_DESCR	Character	No Leave Blank	Leave Blank. This will be filled in by the loader program if an error exists on the line
198-386	189	FILLER			Fill with Spaces

Note: All transfers to BGS should be processed as payments. This is for inter-department business unit transactions only. For AOT - Only the AOT side of the transaction is necessary.

Transaction Codes

Deposits	Receipt Refunds	Transfers
A14 A32	A37	*A59 B39
A15 A33	A38	B59 A39
A16 A34		D59
A17 A35		
A18 *A36		
A19 A66		
A31		

Voucher Payments

A62 *A64
 A63 A65

Refund Expenditures

A67

* Indicates most commonly used transaction code within a transaction type.

Note: The various transaction codes associated with a transaction type are in tact from prior use with FMIS (Financial Management Information System). As far as the VISION system is concerned, all transaction codes associated with a particular transaction type are treated the same.

For example, an A14 Deposit is no different, within the Interface, than an A66 Deposit.

Reports and Notices Generated

Activity log information will be able to be extracted from Oracle Identity Manager on an as need basis.

User Interface

Not applicable.

Business Rules

Refer to the following as to State of Vermont rules regarding interface to the VISION System:

VISION Interface Overview – Vouchers, Deposits, Journal Entries

TIPCOM and VTAPLOAD Overview.pdf

Policy Decisions

Date	Item	Policy Decision
	State Premium Assistance	Individual must accept the State Premium Assistance that is calculated.

References

The following additional documents were referenced:

The D-14 Functional Requirements Document (previously named F-14 Requirements Traceability Matrix (RTM)) which includes requirements addressed in this spec. OneGate Individuals and Families Portal Experience User Guide.

- OneGate Brokers and Navigators Portal Experience User Guide
- Benaissance Service Interface Specifications
- State of Vermont H. 107 – An act relating to health insurance, Medicaid, and the Vermont Health Benefit Exchange – VT LEG #285086
- Federal Register – Department of Health and Human Services – 45 CFR Part 153, 155, 156, et al.
- Vermont Statutes – NSF - § 404. Insufficient funds; penalty
<http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=32&Chapter=007&Section=00404>
- UX2014 - <http://www.ux2014.org/about-ux-2014> Guidelines
- State of Vermont Department of Vermont Health Access Vermont Health Connect – Individual and Small Business Enrollment and Billing Timelines V0.9
- Standard Companion Guide – Health Insurance Exchange Payments v2.2
- Premiums ACA and VT.xls
- 2013 Premiums ACA 1-4 person households.xls
- Vermont's Cost Sharing Assistance Proposal
- Peoplesoft Financials – Interface Transaction Loader – Incoming File Description – Last Modified Nov 2008 – as supplied by State of Vermont

21.8 Noticing

21.8.1 Overview Approach and Catalogue FSD

Attendee/Contributor(s) List

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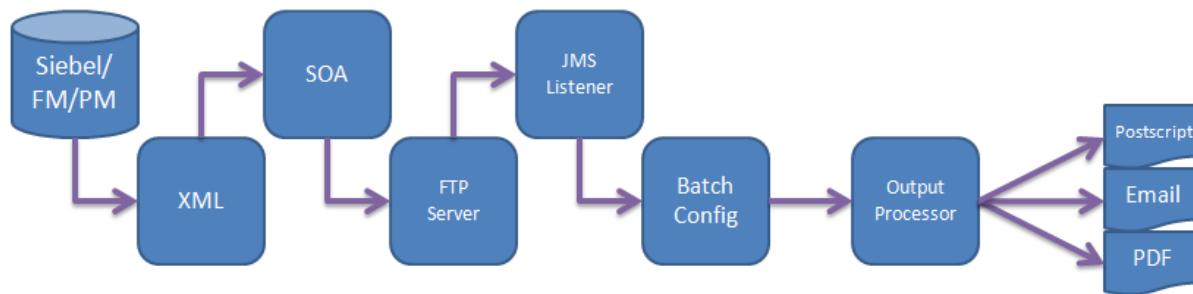
Noticing Approach

The Noticing Functional Area of VHC sends notifications to users of VHC. The Noticing Functional Area incorporates configuration of the Thunderhead NOW System Component notification server to send and accept notices from each component of VHC.

The following diagram illustrates an overview of the processing that occurs to generate a notice when a notice trigger is created and sent to Thunderhead NOW:

Exhibit 193: Thunderhead Test and Production Overview

Thunderhead Test and Production Overview

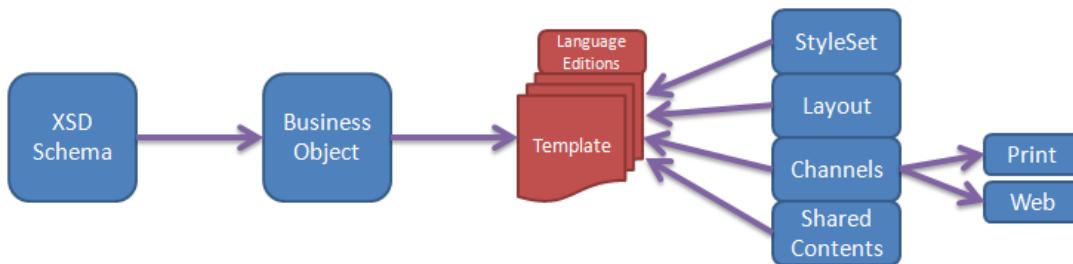


When a notice trigger occurs in either the Siebel CRM or OneGate system components, an XML file will be created. The XML file will be pulled by SOA for processing. If needed, SOA will transform the XML file into the Thunderhead NOW transaction data XML file data structure and retrieve additional data element values from Siebel CRM to include in the transaction data XML file. The final noticing transaction data XML file will be uploaded to the FTP Server Thunderhead NOW inbound directory. A Java Message Service (JMS) Listener will be used to send the request to Thunderhead NOW. The batch configuration file that will be used is specified in the notice request. The batch configuration file tells Thunderhead NOW what to do with the incoming transaction XML. The transaction XML specifies what document to create and how to create it (channels and editions). Thunderhead NOW will process the XML file, merge the content with a template (email or print letter), and output the notification via postscript to a printer, to email using an Simple Mail Transfer Protocol (SMTP) server, or/and a PDF file placed in a server directory that can be used to archive to the Oracle WebCenter content management solution.

The following exhibit is an overview of the components described in this section. The components are included in the design and development of a noticing template in Thunderhead NOW:

Exhibit 194: Thunderhead Development Overview

Thunderhead Development Overview



The Thunderhead NOW components are:

- **XSD Schema** – XML Schema definition (XSD) defines the data structure of the XML files that will be accepted by Thunderhead NOW for processing. The XSD file is used to define a Business Object in Thunderhead NOW.
- **Business Object** – The Business Object defines the XML data elements and structure that will be received in a transaction request.
- **Layout** – Defines the layout for each distribution channel. The layout is used to design the graphical look and feel of the Employer's communications. Regions are defined which will be used by Documents to map the Document contents to the Layout regions.
- **StyleSet** – A collection of styles used to apply formatting to content on documents to create visually appealing documents.
- **Shared Content** – Re-useable content that can be shared by a number of documents, and allows for a single place for the maintenance of the content.
- **Sample Data** – Sample transaction data for a template that can be used for testing a template.
- **Channels** – Defines how a notice will be communicated or the output of a notice. A notice can be sent through the web via email, printed, or mailed.
- **Template/Document** – The template contains the text and contents of the notice. The configuration of the Document will include defining which Channels (i.e., mail, email) the notification will use, the Layout that will be used for each channel, the Styles Set used for formatting the document content, and the Business Object to be used in its properties. The Document will define the sections and fragments, the mapping of the sections to the Layout regions, the data elements and Shared Contents used, configuration of text for the various channels and language editions, and any conditional assembly logic.
- **Batch Configuration** – Tells Thunderhead NOW what to do with the incoming Transaction XML, and specifies what document to create and how to create it (channels and editions).

Requirements Addressed

The following exhibit displays the Universe of Notices that may be developed. Notices may be added, combined, or deleted as further details for noticing are developed and agreed upon with the State of Vermont.

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement and the Design/Solution description. The status of the requirement is the current status at the time of submission of this document.

Exhibit 195: Noticing Requirements Addressed

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-1	Users of the Exchange Web portal can view the history of all communication between the Exchange and the individual online	Validated	In My Messages on the Portal, Users will be able to view all notices sent by the VHC	
NO-2	Provide the capability to target noticing at a family/household or individual level	Validated	The address on record for the account will be used to send notices	
NO-3	Support the message body in a variety of formats including, but not limited to text, RTF, or HTML	Validated	Variety of formats will be utilized	
NO-4	Provide the capability to pass parameters to both the title and the body of the notification	Validated	Data elements from within the VHC will be populated into the notice where appropriate	
NO-5	Include graphics capability for notifications	Validated	Vermont Health Connect Logo will be included on all Notices	
NO-6	Enforce size requirements on messages as defined by the Exchange	Validated	Will be accommodated	
NO-7	Recognize "opt-out" flags attached to individual records and suppress notifications to those individuals	Validated	Any individual who chooses not to participate in the exchange will not receive notices	
NO-8	Recognize and "invalid e-mail" flag and suppress notifications to those addresses	Validated	No email notice will be generated to those with an "invalid e-mail".	
NO-9	Filter out and suppress live e-mails for notification test instances	Validated	Will be accommodated during testing	
NO-10	Assign a notification ID (notification event) and include on all messages as determined by the Exchange	Validated	All notices will be assigned a unique notification ID which will be on each notice	
NO-11	Support barcoding of outgoing notifications	Validated	All notices will be barcoded	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-12	Provide the capability to include both dynamic and static attachments	Validated		In discussion with SOV to find most appropriate solution – meetings to be held week of 5/28
NO-13	Allow for embedded links within notification message	Validated	Will be accommodated	
NO-14	Provide tools to manage e-mail "bouncebacks", including the ability to parse the "bounceback" message for actions	Validated	Will be accommodated	
NO-15	Provide the capability to include the message ID in the notification subject line	Validated		In discussion with SOV to find most appropriate solution – meetings to be held week of 5/28
NO-24	Produce a mailed, written notice to the individual to provide additional verifications; the automated written notice shall include: - Individual name - Address - Unique identifier - Information requested - Due date based on date of initial application	Validated	Notice - To be designed	
NO-25	Send notification for change in individual's Eligibility Status	Validated	Notice - To be designed	
NO-29	Generate communication to individual requesting additional documentation to support his/her attestation of annual / monthly income. This should only occur when the Exchange is not able to verify income via authoritative sources.	Validated	on-screen notification (cross-reference NO-24 for written notice)	
NO-30	Prepare and provide communication to individuals about a mid-year plan decertification and notify need for plan selection / enrollment.	Validated	Notice - To be designed	
NO-31	Prepare written and on-screen notification to individuals regarding eligibility for enrollment periods.	Validated	Notice / on-screen notification	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-37	Generate written and on-screen notification of the result of an individual's eligibility determination (including information such as individuals evaluated, MAGI used for basis of determination, period of eligibility, etc.) Notifications must align with currently established eligibility notices for Medicaid and CHIP.	Validated	Notice - To be designed	
NO-40	Send a formal, written notice to an individual's mailing address summarizing eligibility determination for individual exemption	Duplicate	Duplicate of EL-16	
NO-43	Upon submittal of initial Employer Application, provide email and written notification to employees (as identified on the employee roster) to elect for or opt-out of employer sponsored coverage. Notification should also provide instructions and information to the employee about the open enrollment period and SHOP website access.	Validated	Notice – To be designed	
NO-44	Provide ability to generate on-screen and written notification to employers who select at Small Business Tax Credit of the possibility of tax penalties / liabilities at time of tax filing should their business size or income change.	Validated	Notice – To be designed	
NO-45	Produce a mailed, written notice to the employer to provide additional verifications; the automated written notice shall include: - Employer name - Address - Unique identifier, potentially - Employer EIN - Information requested - Due date based on date of initial application	Validated	Deferred due to self-attestation	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-46	If an employer has an involuntary termination through the Exchange, produce an electronic notification to the Issuer to terminate the employer. Also produce an electronic notification to the employer's employees to inform them of the employer termination.	Validated	Notice – To be designed	
NO-48	Produce written notification / request for employers to verify key eligibility factors (continue to has a current EIN, etc.) for the purposes of annual eligibility / participation renewal and report changes if necessary.	Deferred	Notice (Deferred)	ALM to be updated – per May 2013 Notice meeting
NO-49	Produce a notice of annual open enrollment.	Validated	Notice – To be designed	
NO-50	In all notices produced by the Exchange regarding eligibility determination, notify employers to their rights and responsibilities (including a right to appeal eligibility decisions).	Validated	Notice – To be designed	
NO-51	Generate a formal written notice informing an employer of the details of an appeal decision.	Validated	Notice – To be designed	
NO-53	Generate a notification to an employer regarding the employer's adjusted eligibility determination based on the employer's Exchange eligibility appeal decision.	Validated	Notice – To be designed	
NO-55	Generate written and on-screen notification of the result of an employee's eligibility determination	Validated	Notice – To be designed	
NO-57	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee disenrollment.	Validated	Notice – To be designed	
NO-58	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the Issuer to disenroll the employee.	Validated	Notice – To be designed	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-59	Prepare a notice to CMS with a minimum dataset of information regarding an employee's disenrollment from a qualified health plan through the Exchange. This information is used for tax administration, as applicable.	Validated	Notice – To be designed	
NO-60	If an employee has an involuntary disenrollment through the Exchange, produce an electronic notification to the employee to inform the employee of the employee disenrollment.	Validated	Notice – To be designed	
NO-61	If an employee has a disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee termination and alternative insurance options.	Validated	Notice – To be designed	
NO-62	Produce written notification / request for employee to verify key eligibility factors for the purposes of annual eligibility / enrollment renewal and report changes if necessary.	Validated	Notice – To be designed	
NO-63	Produce a notice of annual open enrollment.	Duplicate	Duplicate of NO-49	
NO-64	Process notification notifying employer of coverage for employees. Also, communicate any next steps required by the employer.	Validated	Notice – To be designed	
NO-66	Generate a notification to an employee regarding the employee's adjusted eligibility determination based on the employee's Exchange eligibility appeal decision.	Validated	Notice – To be designed	
NO-68	Prepare and send communication to the employer regarding changes to the employer's employee roster.	Validated	Notice - To be designed	
NO-71	Prepare and send communication to the employee regarding changes to the employee's account due to a Qualifying Event.	Validated	Notice – To be designed	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
NO-73	Process notification notifying employer of coverage for employees. Also, communicate any next steps required by the employer.	Duplicate	Duplicate of NO-64	
NO-90	Registered Navigators/Brokers must be able to subscribe to Exchange notifications	Validated	Navigators/Brokers will receive the notices for the Consumer the Navigator/Broker represents	
NO-92	Produce electronic or paper notices to Issuers when a plan is not renewed to be in the Exchange	Duplicate	Duplicate of PM-074 which is Deferred	
NO-103	Generate re-amendment notification and information storage consistent with the initial certification amendment process.	Deferred	Notice – To be designed	
NO-109	Approval of the enrollment change request must generate an electronic notification to Exchange issuers indicating the plan enrollment status	Validated	Notice – To be designed	
NO-110	Approval of the enrollment change request must generate an electronic notification to registered Navigators/Brokers indicating the plan enrollment status	Validated	Notice – To be designed	
NO-112	Approval or disapproval of the enrollment change request must send notification to the requesting Issuer.	Validated	Notice – To be designed	
CAG-18	The system shall provide notifications to the appropriate parties upon the following key events in the complaint/appeal process: - Receipt of complaint/appeal - Status Change - Resolution	Validated	Notice – To be designed	
SH-126	Prepare and send communication to the employer regarding changes to the employer's employee roster.	Validated	Notice – To be designed	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
SH-128	Provide capability to prepare and send information-only communication to the employer regarding potential changes to their Tax Credit Eligibility due to a change in the employee roster. Provide a link to IRS website for additional information regarding the Small Business Tax Credit.	Deferred	Notice – To be designed	
SH-136	Provide notification to employers when annual election period is approaching	Validated	Notice – To be designed	
SH-196	Provide notification of successful enrollment to employee	Validated	Notice – To be designed	
SH-200	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee disenrollment.	Validated	Notice – To be designed	
SH-207	If an employee has a disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee termination and alternative insurance options.	Validated	Notice – To be designed	
SH-213	Provide automatic renewal notice to employees	Validated	Notice – To be designed	
SH-217	Produce written notification / request for employee to verify key eligibility factors for the purposes of annual eligibility / enrollment renewal and report changes if necessary.	Validated	Notice – To be designed	
SH-219	Produce a notice of annual open enrollment.	Validated	Notice (Duplicate of NO-49)	
SH-220	Produce notification to employees regarding the number of days left for open enrollment.	Validated	Notice – To be designed	
SH-233	Prepare and send communication to the employee regarding changes to the employee's account due to a Qualifying Event.	Validated	Notice – To be designed	

Ref Code	Description	Status	Design/Solution Description	Open Action Items
EL-16	Send real-time, automated notifications and written notices to Individuals of CMS determinations of exemption status, and update individual accounts accordingly.	Validated	Notice / on-screen notification	
EL-17	Provide the ability to generate online and written notification of the result of an Individual's eligibility determination, including the basis for denial if denied coverage.	Validated	Notice / on-screen notification	
EL-22	Send notifications to the Individuals regarding the enrollment process and the status of their application.	Validated	Notice – To be designed	
EL-20	Send notifications to the Individuals who have not completed their applications informing them of the expiration date.	Validated	Notice – To be designed	
EL-21	Send notifications to the Individuals, Exchange Staff, Brokers, and Navigators of changes to Individuals' applications.	Validated	Notice – To be designed	
EN-8	Generate written notification to individuals who select at Tax Credit Advance of the possibility of tax penalties / liabilities at time of tax filing should their annual income increase.	Validated	Notice – To be designed	
EL-56	Generate online or written requests to Individuals for additional documentation <i>and</i> allow electronic submission of documents, link to accounts, and track follow up activities.	Validated	(Cross-reference: NO-24 for written notice; NO-29 for on-screen notification) Portal allows for individuals to upload documents; system will link uploaded documents to account and route to workflow for SOV staff to review	

Key Assumptions and Considerations

Assumptions

- All information needed for noticing will be pushed from OneGate and Siebel into Thunderhead NOW.
- All noticing in this context will be delivered through Thunderhead NOW.
- It is expected that the requirements addressed list and the corresponding notice list will be refined as specific needs are solidified.

Functional Considerations

The following functional items should be considered:

- All Notices generated by the Thunderhead NOW system component will need to be stored in Oracle WebCenter for future retrieval.
- Any notice generated by the Thunderhead NOW system component will require a link to be stored in Siebel to that notice and be accessed through the Portal.
- Notices will not be generated in real-time but rather through batch functionality.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate
- Thunderhead NOW
- Oracle WebCenter
- Siebel CRM

New Testing considerations

The following testing items must be considered:

- The functionality must exist within the system that requires the generation of the notice. The trigger must exist.
- The data elements required to be populated within the notice must exist in the system.

Noticing Design Details

Interfaces and Data Elements

Each notice will house a series of data elements specific to that notice and will be determined and documented in the notice design document.

Data

Not applicable

Reports and Notices Generated

The following exhibit displays the Notices per the requirements that are in the process of being developed. This list is expected to grow as more notices are identified based on the requirements listed in this FSD.

Exhibit 196: Notices Identified and in Development

VHC Notice ID	Related Ref Code	Notice Name	Description
NO-EE002	NO-24	Additional Verification Required	Produce a mailed, written notice to the individual to provide additional verifications; the automated written notice shall include: - Individual name - Address - Unique identifier - Information requested - Due date based on date of initial application

VHC Notice ID	Related Ref Code	Notice Name	Description
TBD	NO-25	Change in Circumstance (Life Change)	Send notification for change in individual's Eligibility Status
TBD	NO-30	Mid-Year Plan Decertification	Prepare and provide communication to individuals about a mid-year plan decertification and notify need for plan selection / enrollment.
TBD	NO-31	TBD	Prepare written and on-screen notification to individuals regarding eligibility for enrollment periods.
NO-EE005	NO-37 / EL-17	Eligibility Notice Decision	Generate written and on-screen notification of the result of an individual's eligibility determination (including information such as individuals evaluated, MAGI used for basis of determination, period of eligibility, etc.) Notifications must align with currently established eligibility notices for Medicaid and CHIP.
TBD	NO-40	CMS Exemption Notice	Send a formal, written notice to an individual's mailing address summarizing eligibility determination for individual exemption
NO-SB001	NO-43	Employee Packet	Upon submittal of initial Employer Application, provide email and written notification to employees (as identified on the employee roster) to elect for or opt-out of employer sponsored coverage. Notification should also provide instructions and information to the employee about the open enrollment period and SHOP website access.
TBD	NO-44	Small Business Tax Credit Penalties-Liabilities	Provide ability to generate on-screen and written notification to employers who select at Small Business Tax Credit of the possibility of tax penalties / liabilities at time of tax filing should their business size or income change.
TBD	NO-45	TBD	Produce a mailed, written notice to the employer to provide additional verifications; the automated written notice shall include: <ul style="list-style-type: none"> - Employer name - Address - Unique identifier, potentially - Employer EIN - Information requested - Due date based on date of initial application

VHC Notice ID	Related Ref Code	Notice Name	Description
NO-SB016EE	NO-46	Employer Ineligible for Participation	If an employer has an involuntary termination through the Exchange, produce an electronic notification to the Issuer to terminate the employer. Also produce an electronic notification to the employer's employees to inform them of the employer termination.
NO-SB002	NO-48	Annual Renewal	Produce written notification / request for employers to verify key eligibility factors (continue to has a current EIN, etc.) for the purposes of annual eligibility / participation renewal and report changes if necessary.
NO-SB037	NO-50	Appeal Decision Notification	Generate a formal written notice informing an employer of the details of an appeal decision.
NO-SB038	NO-51	Employer Eligibility Redetermination Notice	Generate a notification to an employer regarding the employer's adjusted eligibility determination based on the employer's Exchange eligibility appeal decision.
NO-SB025	NO-55	Eligibility Determination	Generate written and on-screen notification of the result of an employee's eligibility determination
NO-SB004	NO-57	Employee Disenrollment	If an employee initiates a voluntary disenrollment through the Exchange, produce an electronic notification to the employee's employer to inform them of the employee disenrollment.
NO-SB007	SH-220	Open Enrollment Period Reminder	Produce notification to employees regarding the number of days left for open enrollment.
NO-EE004	EL-20	Un-submitted Application Reminder	Send notifications to the Individuals who have not completed their applications informing them of the expiration date.
NO-EE003m	§435.916	Upcoming Renewal	Periodic renewal of Medicaid eligibility
NO-ADM007	n/a	Email Notification – Individual / Employee	This is the standard email that is sent when a correspondence is generated for individuals or employees that have elected "Email" as their preferred transmission method. An email is generated for each correspondence that is triggered, containing the name of the correspondence and providing a link to the HBE.

VHC Notice ID	Related Ref Code	Notice Name	Description
NO-ADM010	n/a	Email Notification – Employer	This is the standard email that is sent when SB correspondence is generated for employers that have elected "Email" as their preferred transmission method. An email is generated for each correspondence that is triggered, containing the name of the correspondence and providing a link to an employer's exchange account for the employer to view and print their correspondence.

User Interface (Sample Screen)

Not applicable

Business Rules

Still to be determined.

References

The *D-14 Functional Requirements Document*.

21.9 Reporting

21.9.1 Overview Approach FSD

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Reporting Approach

The Vermont Health Connect (VHC) will provide Vermont residents tremendous value as they seek to identify their health insurance options. There are many stakeholders that require reports based off data in the VHC to measure its effectiveness and determine areas for improvement. Some of these stakeholders include:

- **State of Vermont** - Monitor operational efficiency, benefits to citizens, direct costs within the VHC, manage state subsidies, understand available plans and enrollment in those plans, and view conditions and effects of enrollment churn.
- **CMS (Centers for Medicare & Medicaid Services)** - Determine participation, coordinate federal tax credits and cost sharing, and view operational quality statistics.
- **Carriers** - Coordination of premium payment processing.

To accommodate these needs, robust reporting functionality needs to be developed so that stakeholders can access the appropriate information in a timely manner. Meeting this goal will require the following steps:

1. **Review Requirements** - Review the requirements related to reporting needs. Isolate these requirements and confirm their intention.
2. **Examine Existing Reports** - Review existing reports provided by the State and match these to the requirements.
3. **Compare to Other States** - View the specifications already completed by the other states and garner more detail where possible.
4. **Understand Source Systems** - Examine the source systems and their data models. Understand how data will flow from these source systems to the reports at a high level.
5. **Meet With Functional Teams** - Meet with Finance, Operations, and Eligibility/Enrollment functional leads to take first pass at answering questions and determining more detailed requirements.
6. **Confirm Requirements** - Confirm detailed requirements and set priorities for reports with State of Vermont stakeholders in each functional area.
7. **Create Reporting Data Model** - Create table structures necessary to support required reports.
8. **Prototype Reports** - Create prototypes of reports with dummy data and confirm visual and functional design with State stakeholders.
9. **Model Data Mapping** - Map the extract, transformation, and load (ETL) of data from the source systems to reporting data model.
10. **Create Design Document** - Culminate all previous steps into document for sign-off.
11. **Development** - Based on the design document, develop the data repository, ETL processes, security considerations, reports, and dashboards.
12. **User Acceptance Testing (UAT)** - Gain consensus from stakeholders that developed items meet the requirements and needs of the VHC.
13. **Deployment & End-User Training** - Deploy tested development application to the production environment and provide training.

By the end of the project, the following overall objectives will have been met:

- **Standardized, Centralized Report Data** - Gather data from different sources and store it in a centralized location to maintain current and historical accuracy.
- **Flexible and Comprehensive Reporting Capabilities** - Have pre-built dashboards and reports, but also allow for ad-hoc analysis by enabling users the ability to choose the fields and calculations they wish to display.
- **Report Delivery Options** - Users will be able to export reports via Excel or PDF and even run them on a schedule. The system will allow for users to be notified when these scheduled reports are run.

Reports will be prioritized based on those that may be needed for October 1 and those that will not be used or needed until after January 1, 2014. Many operational reports will be given a high priority. The second priority tier will contain reports that are required by CMS, but are not due until later in 2014. These reports will be created by January 1st. Finally, the more analytical reports and dashboards that require more data and metrics will be developed later.

Requirements Addressed

The following exhibit includes requirements which are "Met" by this functionality and requirements for which functionality is being designed or configured, and, requirements may or may not have open action item(s).

The table displays the number of the requirement (in the Ref Code column), the requirement description, the status of the requirement, the design/solution description, and the requirement type. This list is the current possible requirements as of the time of submission of this document. It is expected that this list and the corresponding report list will be refined as specific needs are solidified.

Exhibit 197: Reporting Requirements Addressed

Ref Code	Catalog ID	Original Description	Design Solution Description	Requirement Type
A-019	25, 23, 28, 29, 30, 31, 36, 38, 42, 43, 60, 61, 62, 63, 91-94	The specific BI requirements for VHC data have not been identified, but it will involve KPI definition, trend analysis, forecasting, statistical analysis, and aggregation of eligibility, enrollment and plan data. This data will include, but is not limited to: - Cost breakdown per individual - Cost breakdown per employee (SHOP) - Cost breakdown per employer - Plan data - Individual and employee financial data - Premium and CSR subsidy data - Enrollment data - Enrollee demographics	As part of the VHC solution, Business Objects and Business Intelligence will provide the capability to report metrics on Key Performance Indicators (KPI). Only data captured within the Solution will have the capability of being reported on. This will be handled within reporting.	Reporting
CAG-025	4,5,6,7,52	The system shall collect and report on call center metrics for the purposes of identifying outreach and education opportunities	The system will collect and report metrics for identifying outreach and education opportunities for the State.	Reporting
CAG-026	8,9, 10, 11, 12, 13, 14, 15	The system shall collect and report on website usage metrics including standard analytic metrics	CGI has agreed to provide standard Google Analytics for website usage metrics and reporting.	Reporting
CAG-027	8,9, 10, 11, 12, 13, 14, 15	The system shall collect and report on user demographics as feasible from web and call center interactions for the purposes of informing education and outreach activities	CGI will capture available user demographic information and make it available for education and outreach activities.	Reporting
CAG-028	16,17	The system shall collect and report on Navigator web and call center interactions for the purposes of informing education and outreach opportunities.	CGI can store available data and Vermont Health Connect and CGI can build reports to use for education, outreach and analysis.	Reporting

Ref Code	Catalog ID	Original Description	Design Solution Description	Requirement Type
CAG-044	2,3, 26, 39, 41, 44, 45, 46, 47, 53-58, 81-87, 95, 96	The system shall report on multiple data points: volume of contacts, by contact type, reason for contact, type of consumer, complaints, appeals, resolution, transfers to other programs, consumer satisfaction, by agent, specified time frames.	The system will report on the multiple data points described in the requirement Vermont Health Connect stated that the primary purpose of this requirement was to measure the churn between HIX and Medicaid and others. Vermont Health Connect and CGI will design these reports and determine the appropriate available data to get the desired output.	Reporting
EN-040	25	Generate annual report to IRS about QHP enrollment	An annual enrollment file will be created and sent to the IRS. CMS has identified that the protocol and format for the annual IRS enrollment reporting has not yet been defined. Further guidance from CMS will be forthcoming.	Reporting
New-002	99	Quarterly, report to the State the state premium subsidy payments that have not been forwarded to the Issuer due to a lack of matching premium payments from the individual.	The VHC will have a record of the State Premium Assistance and CSR amounts that should have been paid to the issuers during the previous quarter. An VHC process will be performed, matching the expected amounts to the amounts actually disbursed by the Payment Processor. Expected amounts that have NOT been disbursed will be reported so that the State can investigate.	Business/Policy
New-101a	36	Send premium payment reports to the State's Medicaid Business Office.	Premium payments received from small business entities will be reported to the State's Medicaid office on a periodic basis (not more frequently than weekly). The report will contain information that identifies the small business. The premium payment transactions will have originated at the Payment Processor.	Interface
RP-009	23,24,25	Generate Monthly Report on Individual Enrollment in Qualified Health Plan	This requirement will be met by using Business Objects to generate Monthly Report on Individual Enrollment in Qualified Health Plan.	Reporting
RP-010	32	Generate report of Individual Premium Payment History to CMS	This requirement will be met by sending the Individual Premium Payment History information to CMS in the format specified by CMS. The report can only contain the information available in the VHC, which may not include the payment history. This req may be related to FM-17: Produce electronic Issuer payment history report and transmit to CMS in a format as determined by CMS.	Reporting
RP-011	98	Generate and Send Enrollment Discrepancy Reports to Issuer and CMS	The CGI team will develop specific Enrollment Discrepancy reports through Business Objects for Vermont Health Connect operations.	Reporting
RP-012	100	The VHC will provide detail reports to support and reconcile the Annual Financial Report.	The System will provide detail reports to support and reconcile the Annual Financial Report.	Reporting

Ref Code	Catalog ID	Original Description	Design Solution Description	Requirement Type
RP-013	59, 102	<p>Provide regular reporting on Plan Data to CMS. Schema should include:</p> <ul style="list-style-type: none"> - Enrollment - Cost and administrative per plan - Issuers - Plans - Benefit structure - Plan rates - Complaints 	<p>The system will provide regular reporting on Plan Data to CMS. Schema will include:</p> <ul style="list-style-type: none"> - Enrollment - Cost and administrative per plan - Issuers - Plans - Benefit structure - Plan rates - Complaints 	Reporting
RP-014	101	Report on transparency and quality data to CMS	The transparency and quality data will be defined by CMS, and then this requirement will be met by sending the required information to CMS in the format specified by CMS.	Reporting
RP-017	102	<p>Provide periodic report to the Federal Data Services Hub to submit required data to CMS, but not limited to:</p> <ul style="list-style-type: none"> - Issuer data - Plan data including - Benefits structure - Rates - Enrollment 	The application will provide periodic report to the Federal Data Services Hub to submit required data to CMS, including:	Reporting
FM-110	100	Store and recall saved queries created by authorized users	The VHC will provide detail reports to support and reconcile the VHC Annual Financial Report	Interface
FM-112	100	Create regular and ad-hoc reporting on an as-needed basis to govern and monitor the VHC financial health	A Business Object universe will be configured based on the VHC's security access and financial ad-hoc reporting policies. The authorized VHC staff will use the ad-hoc financial reporting Business Object universe to create and generate the desired on-demand financial reporting activities.	Functional
FM-113	100	Create the VHC Annual Financial Report data as required by CMS and other state entities	Based on the CMS and VHC's annual financial reporting policies, a Business Object universe will be configured to identify the data elements required to support the annual financial reporting policies. The annual financial reporting details can be used to generate predefined reports and on-demand reports, and the report data can be exported into a CSV formatted file or to a PDF document.	Functional

Ref Code	Catalog ID	Original Description	Design Solution Description	Requirement Type
New-005	100	<p>The VHC system shall provide an aggregated report in a GAAP compliant format for each Individual and Family Unit:</p> <ul style="list-style-type: none"> - QHP premiums due for a reporting period (month) - Payments made, period to date (month) - Payments applied to QHP premiums for a period (month) 	<p>A premium payments for individuals report will be produced monthly using data from the VHC database. The report will include, for each individual and family unit:</p> <p>QHP premiums due, QHP premiums past due, Amount received during the past period (month), Amount applied to each premium due or past due during the period.</p>	Functional
New-006	100	<p>The VHC system provide an aggregated report in a GAAP compliant format for each Small Business:</p> <ul style="list-style-type: none"> - QHP Premiums for a reporting period (month) - Payments made, period to date (month) - Payments applied to QHP premiums for a period (month) 	<p>A premium payments for small businesses report will be produced monthly using data from the VHC database. The report will include, for each employer:</p> <p>QHP premiums due, QHP premiums past due, Amount received during the past period (month), Amount applied to each premium due or past due during the period.</p>	Functional
New-007	92, 93	<p>The VHC system shall provide an aggregated report in a GAAP compliant format for each Individual and Family Unit:</p> <ul style="list-style-type: none"> - Federal APTC/CSR subsidy calculated for an Individual for a reporting period (month) - Federal APTC/CSR subsidy payment paid to the Issuer for an Individual for a reporting period (month) 	<p>A federal APTC payments for individuals report will be produced monthly using data from the VHC database. The report will include, for each individual and family unit:</p> <p>Amount of the Federal APTC expected to be paid during the last period (month), Amount paid to the issuer for the Federal APTC during the period.</p> <p>A federal CSR payments for individuals report will be produced monthly using data from the VHC database. The report will include, for each individual and family unit:</p> <p>Amount of the Federal CSR expected to be paid during the last period (month), Amount paid to the issuer for the Federal CSR during the period. These reports could be printed as a single report or as two separate reports. The desired format will be determined during system design.</p>	Functional

Ref Code	Catalog ID	Original Description	Design Solution Description	Requirement Type
New-008	92, 94	<p>The VHC system shall provide an aggregated report in a GAAP compliant format for each Individual and Family Unit:</p> <ul style="list-style-type: none"> - State Premium Assistance and State CSR calculated for an Individual for a reporting period (month) - State premium Assistance and State CSR paid to the Issuer for an Individual for a reporting period (month) 	<p>A State Premium Assistance payments for individuals report will be produced monthly using data from the VHC database. The report will include, for each individual and family unit: Amount of the State Premium Assistance expected to be paid during the last period (month), Amount paid to the issuer for the State Premium Assistance during the period. A State CSR payments for individuals report will be produced monthly using data from the VHC database. The report will include, for each individual and family unit:</p> <p>Amount of the State CSR expected to be paid during the last period (month), Amount paid to the issuer for the State CSR during the period. These reports could be printed as a single report or as two separate reports. The desired format will be determined during system design.</p>	Functional
PM-101	102	<p>Provide functionality to periodically submit required data to the appropriate CMS system for plan management and fiscal management functions including but not limited to reporting on the following data:</p> <ul style="list-style-type: none"> - Issuer data - Plan data including <ul style="list-style-type: none"> - Benefits structure - rates - enrollment 	<p>This requirement may be a duplicate of requirement RP-13.</p>	Reporting
RP-007	102	<p>Provide financial management reporting including:</p> <ul style="list-style-type: none"> - Cost and administrative per plan - Issuers - Plans - Benefit structure - Plan rates 	<p>This requirement will be met using Business Objects reporting to provide financial management reporting including: Cost and administrative per plan, Issuers, Plans, Benefit structure & Plan rates.</p>	Reporting

Key Assumptions and Considerations

Assumptions

- All information needed for reporting will be pushed from Bennaisance and OneGate into Siebel.
- All reporting in this context will be delivered through OBIEE. Any data interfaces will be addressed separately.
- It is expected that the requirements addressed list and the corresponding report list will be refined as specific needs are solidified.

Functional Considerations

The following functional items considered:

- To access dashboards or generate canned reports, users will have the appropriate security in OBIEE.
- Interfaces are needed to communicate some of the requirements to the appropriate party.
- Information gathered in some of the reports will not be updated in real-time. Any real-time reporting should come directly out of Siebel or the transactional system.

Solution / Technical Considerations

The following solution and technical items should be considered:

- OneGate
- Oracle Identity Management Suite
- Oracle Data Integrator

New Testing Considerations

The following testing items must be considered:

- The tester must have capability to log on as all five identified roles in the VHC Portal; Individual, Employer, Employee, Broker, and Navigator. Accounts should be created prior to executing test scripts.
- The tester must have capability to login to Siebel as all identified roles as finalized by the SOV.
- The tester must test condition for the portal login.

Report Design Details

Interfaces and Data Elements

Oracle Data Integrator is used for taking data from source systems to data warehouse.

Data

The source systems used are as follows:

- Siebel
- OneGate
- Bennaisance

Reports and Notices Generated

- Reports will be delivered via the Oracle Business Intelligence Enterprise Edition (OBIEE) platform
- Data will be staged in an Oracle DB 11g data repository before being moved to the platform.

Exhibit 198: Reports and Notices Generated

Report ID	Related Ref Code	Report Name	Category	Report Description
1	NO-034	APTC Applicants	Current Health Coverage	Report describing the APTC Applicants.
2	CAG-044	Retention Report	Retention of Coverage	Report describing the Retention of Users
3	CAG-044	Plan Renewal	Health Plan Renewal in Marketplace	Report describing the renewal of health plans
4	CAG-025; CAG-027;	Total number of calls	Call Center	Number of calls that enter the integrated voice response system
5	CAG-25	Average speed of answer	Call Center	Average length of time for which a call is connected to automated call distribution system before answered (Average time a caller waits in queue before being connected to an agent)
6	CAG-25	Abandonment rate	Call Center	Calls abandoned by caller/all calls; Calls abandoned by caller/agent calls;
7	CAG-25	Average Handle Time	Call Center	Time agent spends on call
8	CAG-026	Page Views	Website	Number of page views across the whole site, average time spent per page
9	CAG-026	Visits	Website	Number of visits, unique visits, and averages
10	CAG-026	Visitors	Website	Number of visitors, unique visitors, concurrent visitors, and averages
11	CAG-026	Session Time	Website	Average session duration across the site as a whole, per section, tool, and top pages
12	CAG-026	Bounce Rates	Website	Bounce rates across the site as a whole, per section, tool, and top pages
13	CAG-026	Sources of Traffic	Website	Numbers of traffic inbound, split by type (search engines, referrals sites, widgets, badges, direct linking, etc)
14	CAG-026	User Accounts	Website	Number of secure accounts established ("registered users")

Report ID	Related Ref Code	Report Name	Category	Report Description
15	CAG-026	Email & listserv usage	Website	Total number of subscribers, total number of electronic communication opt-ins, total messages, average number of communications by type, trends
16	CAG-028	Individuals/families served through IPAs	IPAs	Total number of persons/families assisted in one-on-one sessions
17	CAG-028	Number of assistors	IPAs	Number of individuals trained & certified, by assistor entity; specialty services provided by number of assistors (languages, other kinds of targeted community help, etc)
23	A-019	Eligibility Applications submitted	Eligibility and Enrollment	Number of applications submitted by consumers or on behalf of consumers, by type of application, Number of applications submitted requiring follow up
24	A-019	Application acceptance rate	Eligibility and Enrollment	Number of policies issued (within 30 days of completed application submissions)/Number of applications submitted; Number of Medicaid/CHIP enrollments/Number of Medicaid/CHIP applications submitted through the SBM
25	EN-036, FM-005	QHP Enrollment requests submitted	Eligibility and Enrollment	Number of QHP enrollment requested submitted, Number of QHP enrollment requests submitted requiring follow up (inconsistencies, exceptions), by channel, by size of household
26	CAG-044	Customer Service Satisfaction	Customer Service	Satisfaction rates with customer service lines of business, by channel based on surveys and monitoring of activities
27	RP-016	Number of individuals that attempt to obtain coverage through VHC	Access	Number of individuals that attempt to obtain coverage through VHC

Report ID	Related Ref Code	Report Name	Category	Report Description
28	A-019	Number of employers that attempt to obtain coverage through Small group exchange	Access	Number of employers that attempt to obtain coverage through Small group exchange
29	A-019	Number of individuals who enroll in coverage through the Small group exchange	Access	Number of individuals who enroll in coverage through the Small group exchange
30	A-019	Number of employers that facilitate coverage through the VHC	Access	Number of employers that facilitate coverage through the VHC
31	A-019	Distribution of enrollment by actuarial value tier (Bronze, Silver, Gold, Platinum) for Individual and Small group Exchanges	Access	Distribution of enrollment by actuarial value tier (Bronze, Silver, Gold, Platinum) for Individual and Small group Exchanges
32	pprfp-001	Individual exchange premiums (with and without APTCs) (not Small Group)	Affordability	Individual exchange premiums (with and without APTCs) (not Small Group)
33	FM-006	Average change in total premium (with and without APTCs)	Affordability	Average change in total premium (with and without APTCs)
34	FM-006	Individuals receiving APTCs	Affordability	Individuals receiving APTCs
35	FM-006	Total APTCs paid	Affordability	Total APTCs paid
36	New-101a, A-019	Small group exchange premiums	Affordability	Small group exchange premiums
37	A-019	Small group exchange premiums rate change	Affordability	Small group exchange premiums rate change
38	A-019	Employer contribution to premium (fixed \$ amount)	Affordability	Employer contribution to premium (fixed \$ amount)
39	CAG-044	Application processing time	Consumer Satisfaction	Application processing time
40	RP-021	Application acceptance rate	Consumer Satisfaction	Application acceptance rate
41	CAG-044	Percentage of successful (appeal resolution) application appeals (think pie chart)	Consumer Satisfaction	Percentage of successful (appeal resolution) application appeals (think pie chart)

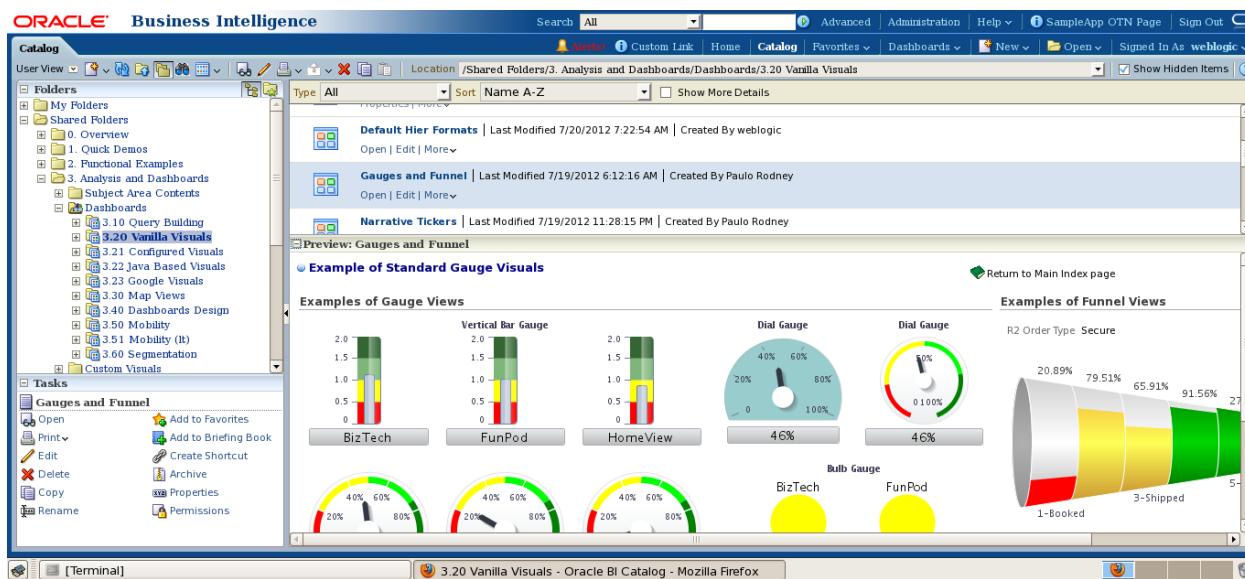
Report ID	Related Ref Code	Report Name	Category	Report Description
42	A-019	Channel of enrollment	Consumer Satisfaction	Channel of enrollment
43	A-019	Assistance with enrollment	Consumer Satisfaction	Assistance with enrollment
44	CAG-044	Timely approval rate (renewals)	Retention	Timely approval rate (renewals)
45	CAG-044	Administrative approval rate (renewals)	Retention	Administrative approval rate (renewals)
46	SH-205, CAG-044	"Unverified disenrollment" rate	Retention	"Unverified disenrollment" rate
47	CAG-044	Renewal rate in individual exchange - plan level	Stability	Renewal rate in individual exchange - plan level
52	CAG-025	Availability of customer support	Consumer Satisfaction	Whether 24/7 customer call center is available
53	CAG-044	Percentage of enrollees highly satisfied with application/renewal process	Consumer Satisfaction	
54	CAG-044	Percentage of all calls answered within the first three rings, either in person or by the automated voice response	Consumer Satisfaction	
55	CAG-044	Average wait/hold time for a live voice	Customer Satisfaction - Call Center	
56	CAG-044	Percentage of incoming calls that receive a busy signal	Customer Satisfaction - Call Center	
57	CAG-044	Percentage of all calls received during regular business hours each month in which a message was left that were subsequently returned within 24 hours or the next business day	Customer Satisfaction - Call Center	
58	CAG-044	Abandoned call rate	Customer Satisfaction - Call Center	
59	RP-013	Number of insurance plans in the state	Stability	

Report ID	Related Ref Code	Report Name	Category	Report Description
60	A-019	Number of covered lives	Stability	
61	A-019	Number of employers offering coverage	Stability	
62	A-019	Percent of employees in firms that offer coverage	Stability	
63	A-019	VHC revenues by category	Sustainability	Total revenues to VHC from each revenue category (e.g. premiums, taxes, user fees, surcharges, ancillary services or other products such as vision or dental, and non-user fee sources, such as grants or paid advertising)
81	CAG-044	Number of seamless coverage transitions	Access	
82	CAG-044	Number of non-seamless coverage transitions	Access	
83	CAG-044	"New-to-public-coverage" enrollment	Access	Number of new enrollees excluding churn and transfer, across program(s)
84	CAG-044	Number of grievances	Consumer Satisfaction	Customer complaints regarding enrollment and reasons
85	CAG-044	Number of eligibility determination appeals (for subsidy) per application	Consumer Satisfaction	Number of eligibility determination appeals divided by number of completed applications
86	CAG-044	Composite measure of satisfaction	Consumer Satisfaction	Composite of: call time in queue, call resolution rate, call abandonment rate
87	CAG-044	Churn rate	Consumer Satisfaction	Percentage of disenrollees reenrolling within a specified period
90	RP-016	Appropriateness of coverage - Percentage of enrollees with incorrect eligibility determination	Access	
91	A-019	Percent of employees that are enrolled in ESI	Stability	Firm size Industry

Report ID	Related Ref Code	Report Name	Category	Report Description
92	A-019, New-007, New-008	Number of individuals receiving premium subsidies	Affordability	Absolute number of individuals receiving premium subsidies
93	A-019, New-007	Number of individuals receiving cost sharing subsidies (Federal)	Affordability	Absolute number of individuals receiving cost sharing subsidies
94	A-019, New-008	Number of individuals receiving cost sharing subsidies (State)	Affordability	Absolute number of individuals receiving cost sharing subsidies
95	A-019, CAG-044	Number of disenrollees from specified program(s)	Retention	Monitor flow out of program(s); starting point to assess changes to total enrollment
96	A-019, CAG-044	Retention of coverage	Stability	Distribution of longevity of coverage through VHC, by month
97	New-100, New-101	Number and dollar value of aggregated premiums sent to issuers monthly	Sustainability	
98	RP-011	Number and dollar value of discrepancies between projected and actual collected premiums	Sustainability	
99	New-002	Premium Payment Subsidy Reconciliation Report	Finance	The VHC will have a record of the State Premium Assistance and CSR amounts that should have been paid to the issuers during the previous quarter. A VHC process will be performed, matching the expected amounts to the amounts actually disbursed by the Payment Processor. Expected amounts that have NOT been disbursed will be reported so that the State can investigate.

Report ID	Related Ref Code	Report Name	Category	Report Description
100	FM-110; FM-112; FM-113; New-005; New-006; RP-012	Detail Financial Report	Finance	The VHC will provide GL Account-Level data used in (Income Statement, Balance Sheet, Cash Flow, etc.) on a monthly basis. This dashboard will allow the user to drill-down to the transaction-level detail to support this. The user can export data to Excel or create their own views (ad-hoc analysis) based off of the universe.
101	RP-014	Transparency & Quality Dashboard	Quality	Metrics still to be defined by CMS. Will provide insight for CMS into the VHC and the quality of its service.
102	RP-013; RP-017; PM-101; RP-007	Plan Dashboard	Quality	Dashboard demonstrating the quality of Issuer's and their respective plans. This includes benefit structure, rates, and enrollment.

User Interface (Sample Screen)



A sample screen from the user interface is shown above. In the sample environment above, you will notice that the catalog contains both "My Folders" and "Shared Folders". The "Shared Folders" are set by the system and allow the user to access system-generated reports and dashboards. Alternatively, a user can create their own analysis and save it privately in the "My Folders" section. On the screen there is a sample dashboard that demonstrates the types of gauge visuals there are available. Some of the available tasks are shown in the bottom left corner as well.

Business Rules

Still to be determined.

References

- The Reporting RTM that includes reporting requirements across functional areas.
- Report Catalog which outlines the specific reports that are needed.

22 Glossary

The following is a list of terms and their definitions introduced in this document.

Exhibit 199: Glossary

Term	Definition
access management	The management of end user access to the environments.
Actuate Report Server	The software that is installed on a Windows Server in accordance with the Certified Configuration for Siebel CRM Programs for reporting and printing purposes.
Administrative Services Only (ASO)	An arrangement in which an employer hires a third party to deliver employee benefit administrative services to the employer. These services typically include health claims processing and billing. The employer bears the risk for health care expenses under an ASO plan.
administrative user	An end user assigned by a client to, identify the end users permitted to use certain components of the hosted environment and, to assign one or more responsibilities to each end user.
administration service	Application Management Services delivered by hosting provider under a defined deployment model.
after-action review	A meeting held between the hosting provider and the customer after Production Go-Live of a migration or Transition to Hosting Services for the purpose of assessing the success of the project and any outstanding issues.
anticipated peak workload	The target or goal workload for the hosting environment during testing.
application administrator	The role assigned to an end user who assumes the responsibility for performing as a technical lead administrator.
Application Management Services	Services performed by the hosting provider to manage, monitor, and administer the programs within the client's environments.
application tier	The server that resides in a middle-tier, between the desktop clients and the database tier. Desktop clients send their requests to a server in the application tier, which processes the request or sends it to another server, such as the database server. (Web Server, Forms Server, Concurrent Processing Server, Reports Server, Admin Server, etc.).
approved third-party software	Software separately acquired by the hosting provider or the customer that adheres to hosting provider's integrations and operational standards.
architecture design document	A document prepared by the hosting provider that specifies the customer's hosted architecture (Physical and Logical) at the commencement of hosting services.
Authorized Network Provider (ANP)	A network provider approved by the client that the hosting provider has retained for the purpose of providing connectivity for the hosting services in accordance with service level standards.
back out plan	A list of steps, and the roles or individuals responsible for performing such steps that are required to reverse changes that had been applied to a client's production and non-production environments.

Term	Definition
balance billing	When a provider bills you for the difference between the provider's charge and the allowed amount. For example, if the provider's charge is \$100 and the allowed amount is \$70, the provider may bill you for the remaining \$30. A preferred provider may not balance bill you for covered services.
base configuration	The standard amount of server, storage, networking, firewall, and load balancing provided for the client's environment.
base products	Unaltered software components, such as executable programs and compiled libraries.
Batch Management software	Software to enable the hosting provider to schedule, monitor, and manage batch workloads in the client's environment. An example of batch management software is Concurrent Manager.
break-fix	A code change designed to restore, to its pre-change state, the logic or functionality of a CEMLI that had been affected by a change to an environment.
Business Intelligence Technology and Application Program	A program identified by a Business Intelligence application or a Business Intelligence technology program.
capacity management	The process of planning, analyzing, and sizing storage and transaction processing capability to enable the Production Environment to handle data processing demand.
Centers for Medicare and Medicaid Services (CMS)	CMS is a Federal agency, which is a federal agency within the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children's Health Insurance Program (SCHIP), and health insurance portability standards.
certified configuration	The combination of the configuration, instances, programs, and the operating system, as provided by hosting provider, that is compliant with hosting provider standards and policies.
certification	A decision to declare an issuer as an authorized health insurance provider in Vermont.
change	A hosting provider - or client-initiated deployment of a specific addition, modification or removal, of a component, item, feature or function, to an environment. Examples of changes are the deployment of a release into the environment and a modification to the environment configuration.
change action plan	A plan that identifies the steps, and the roles or individuals responsible for performing such steps that are required to complete a specific change to an environment.
change management	The management and deployment of changes to an environment.
change request	A request by customer via Hosting Provider Change Management process for a change to an environment.
code refresh	The process of copying the full application code from a Source Environment to a target environment and making the required configuration changes within the application tier of the target environment.
computer and administration services	Application Management Services delivered by hosting provider deployment model.
Concurrent Manager	An example of Batch Management software.

Term	Definition
Concurrent PeopleSoft Enterprise Users	The number of PeopleSoft Enterprise - Professional Application users, PeopleSoft Enterprise CRM Self Service Application users, PeopleSoft Enterprise Financials Self Service Application users, PeopleSoft Enterprise Human Resources Self Service Application users, PeopleSoft Enterprise Portal Self Service Application users, and PeopleSoft Enterprise Learning Solutions Self Service Application Users simultaneously logged into the Environment.
concurrent review	Concurrent review involves monitoring the medical treatment and progress toward recovery, once a patient is admitted to a hospital, to assure timely delivery of services and to confirm the necessity of continued inpatient care. This monitoring is under the direction of medical professionals. Concurrent review is a component of "Utilization Review."
configuration migration	The process of copying application metadata and artifacts from a Source Environment to a Target Environment and making the required configuration Changes within the Target Environment.
contract document	The contract signed by both Hosting Provider and Customer that is governed by the Agreement that outlines the Hosting Provider Programs and Services.
critical patch updates	Updates that are provided to Customer by Hosting Provider's Support Services organization as part of provider's technical support services and that are applied to the Environment as part of the Emergency Release Management process. Critical Patch Updates are designed to address significant security vulnerabilities and other issues that may relate to, or serve as prerequisites to, security issues, and may also include non-security fixes that are designed to address interdependency issues related to security patches.
custom services	Services performed by hosting provider.
data center	The physical location where the Environments for which Hosting Provider performs Hosting Provider Services reside.
data center security policy	A document prepared and maintained by Hosting Provider that outlines access control requirements applicable to Hosting Provider's Data Center, including access requests, physical screening, on-site behavior and prohibited items.
database refresh	The process of copying a database from a Source Environment to a Target Environment and making the required configuration Changes within the database of the Target Environment.
decommission	The process defined by hosting provider under which Customer's use of Hosting Provider Environments is ended and the Hosting Provider Services are terminated.
decommission tape	The magnetic tapes provided by Hosting Provider as part of the Decommission of Computer and Administration Services that contain a copy of the production data from Customer's Production Environment.
dedicated	Isolated physical and virtual infrastructure for purpose of completely segregating Customer environments from other Hosting Provider tenants. Including firewall, load balancer, switch, router, server, storage.
default-deny	A network-oriented approach to access control that implicitly denies the transmission of all network traffic but then specifically allows only required network traffic based on protocol, port, source, and destination.

Term	Definition
demilitarized zone	The "neutral zone" between the Internet and Hosting Provider's, or as applicable, a Customer's, private network.
demo and demo environment	Demo, and Demo Environment, means a Demonstration Environment.
demonstration environment	A type of Production Support Environment that is used for demonstration purposes.
Dev and Dev environment	A Development Environment.
development environment	A type of Non-Production Environment in which Customer or Customer Alternate performs development activities in support of Hosting Provider Services, such as the creation of customizations.
diagnostic server	A server enabled by Hosting Provider as part of Administration Services to remotely monitor the status and operation of Customer's Environment.
disaster	An Unplanned Outage that causes a complete loss of access to and use of the Hosting Provider Programs in the Production Environment at the Primary Site for a period greater than 24 hours.
disaster recovery	Services provided by Hosting Provider in accordance with the applicable Schedule to recover Production Environment data and to re-establish the Production Environment.
disaster recovery environment	The instance within the Secondary Site that mirrors Production in capacity, configuration in every way for the sole purpose of maintaining and operating Customers Production applications in the event of a disruption to the Hosting Providers services in Primary Site.
disaster recovery plan	A plan prepared and maintained by Hosting Provider that identifies tasks related to recovery and business continuity in the event of a Disaster.
discharge planning	Medical personnel of a health plan working with the attending physician and hospital staff to assess alternatives to hospitalization, evaluate appropriate settings for care, and arrange for the discharge of a patient, including planning for subsequent care at home or in a skilled nursing facility. The goal is to determine when patients are ready to go home, and to provide a more comfortable, cost-efficient setting for continued treatment.
Data Loss Prevention (DLP)	A system that is designed to detect potential data breach incidents in timely manner and prevent them by monitoring data while in-use (endpoint actions), in-motion (network traffic), and at-rest (data storage).
DMZ server	A public-facing application server or web server located in the Demilitarized Zone.
duty manager	The Hosting Provider personnel identified by Hosting Provider as Customer's point of contact for escalating Service Requests within Hosting Provider.
Electronic Medical Record	An EMR is a computerized medical record created in an organization that delivers care, such as a hospital or physician's office. Electronic medical records tend to be a part of a local stand-alone health information system that allows storage, retrieval and modification of records.
embedded software	Third-party software that is incorporated by hosting provider into certain hosting provider programs.

Term	Definition
emergency release management	The process by which critical patch updates are applied to a client's environment.
end user	An individual who is authorized by the client to use the hosting provider programs within the environment.
enhanced recovery services	The Service under which hosting provider provides Disaster Recovery services – to meet Production RPO and RTO.
enterprise data warehouse/business intelligence	Refers to the entire set of enterprise data warehouse, business intelligence, and analytic capabilities.
enterprise governance	A hosting provider program identified by hosting provider as an enterprise governance, risk, and compliance program.
entitlement	The base level of services that are included as part of hosting provider's standard hosting provider services.
environment	The combination of Infrastructure and supporting software that is (i) configured for the hosting provider programs operating on it and for specific uses as part of the hosting provider services, and (ii) used by Hosting Provider to perform hosting provider services. For computer and administration services and administration services, the environment consists of the production environment, any production support environment(s) and any non-production environment(s).
environment plan	A document prepared and maintained by hosting provider that identifies the environments used during implementation of the hosting provider services and their respective purposes, such as development, CEMLI design and test, UAT, or staging purposes.
federal environment	A dedicated, caged hosting provider environment at the hosting provider's data center for United States Federal Government entity customers that purchase computer and administration services and hosting provider's federal security services.
Federal Security Services	A service option applicable to Computer and Administration Services for United States Federal Government Customers, as described in the Federal Security Services Schedule.
full refresh	The process of copying of the database and full application code from a source environment to a target environment and making the required configuration changes within the database and application tier of the target environment.
functional service desk	Services under which hosting provider creates, receives, monitors, routes, and closes functional service desk service requests.
functional service desk service request	A request for assistance with the client's environment or any component thereof submitted to the functional service desk.
Go-Live	Refers to when a production system actually goes online "live."
Health Benefits Exchange (HBE)	Health Benefits Exchange (HBE) is the name given by the State of Vermont to the Vermont Health Insurance Exchange. Also known as the Health Insurance Exchange (HIX).
Health Insurance Exchange (HIX)	Health Insurance Exchange (HIX) is a set of state-regulated and standardized health care plans in the United States, from which individuals may purchase health insurance eligible for federal subsidies.

Term	Definition
Health Insurance Portability and Accountability Act	Title I of the Health Insurance Portability and Accountability Act (HIPAA) protects health insurance coverage for workers and their families when they change or lose their jobs. Title II of HIPAA, known as the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers.
hosting provider	The line of business that delivers the Hosting Provider Services.
hosting provider application list	A document that lists all application programs covered by Hosting Provider services.
hosting provider continuous connection network	A dedicated network designed to support Network Connectivity between Hosting Provider and Customer's Environment, and that uses the following elements: a firewall, VPN, intrusion detection, authentication, reporting, and DNS.
hosting provider controlled environments	Those environments in which Hosting Provider has sole control to make Changes.
hosting provider controlled infrastructure	Infrastructure used for Administration Services that is managed and maintained solely by Hosting Provider.
hosting provider customer portal	The Customer-specific Internet based portal provided by Hosting Provider to Customer as part of the Hosting Provider Services by which Customer may view performance reports generated by Hosting Provider and the status of Service Requests.
hosting provider data center	The Data Center(s) retained and managed by Hosting Provider, or by a third party retained by Hosting Provider, at which Hosting Provider delivers Hosting Provider Services.
hosting provider data center badge access	An Hosting Provider form that must be completed by a person seeking to visit Hosting Provider's Data Center. Once completed by the visitor, the form is forwarded within Hosting Provider for review and approval purposes, and is retained by Hosting Provider in accordance with Hosting Provider policy.
hosting provider internal support network	Hosting Provider Internal Support Network is comprised of a firewall, VPN, intrusion detection, authentication, reporting, and DNS. This isolated network is the standard Network Connectivity option for Hosting Provider personnel to connect to the Environment.
hosting provider product issue	An Incident associated with the functioning of Hosting Provider Program(s) (including program errors) but is not caused by Hosting Provider's performance of Hosting Provider Services.
hosting provider program	The Hosting Provider software product licensed to Customer separately and for which Hosting Provider performs Hosting Provider Services. Hosting Provider Programs shall be deemed to mean all the Hosting Provider Programs identified for which Hosting Provider is providing Hosting Provider Services. Hosting Provider Programs may include Hosting E-Business Suite Programs, PeopleSoft Enterprise Programs, Siebel CRM Programs, Hosting Provider Technology Programs, Hosting Provider Hyperion Programs, Business Intelligence Technology and Applications Programs, Retail Programs, Agile Product Lifecycle Management Programs, Enterprise Governance, Risk, and Compliance Programs, User Productivity Kit Programs. The term Hosting Provider Program includes any Embedded Software within the applicable Hosting Provider Program.
hosting provider project plan	The document prepared by Hosting Provider that outlines the tasks to be performed by Hosting Provider, including anticipated start and end dates, for Transition Advisory Services.

Term	Definition
hosting provider service desk	A team of resources provided by Hosting Provider Hosting Provider as part of Hosting Provider Services, under which Hosting Provider Hosting Provider creates, receives, monitors, routes, and closes Service Requests or Incidents, as described in the applicable Schedule.
hosting provider support	The Hosting Provider technical support organization (Hosting Provider Support Services) that provides product-related technical support services for Hosting Provider Programs.
hosting provider technology program	An Hosting Provider Program identified by Hosting Provider as a Technology Program. Hosting Provider performs Hosting Provider Services under an applicable agreement.
Intrusion Detection System (IDS)	A system that monitors the client's environment for security violations such as attack signatures, anomalous ports, and anomalous protocols being accessed.
implementer	A third-party vendor or software integrator retained by customer to provide implementation services to customer in support of hosting provider services. for the purpose of this definition, an implementer may be hosting provider's consulting line of business.
incident	Any event experienced by the client in its use of the hosting provider services for which a service request has been submitted, that is not consistent with the standard, documented operation of the hosting provider services, and which causes, or may cause, a service interruption.
individual patch	A software fix, created by hosting provider, to an hosting provider program and provided between patch set releases. Individual patches are designed to address specific software errors or vulnerabilities but not otherwise intended to change the functionality of programs.
information security incident response lead	The hosting provider employee assigned by hosting provider to lead hosting provider's response to severity 1 and severity 2 information security incidents.
information security incident response plan	A document prepared by hosting provider that details activities that are to be performed in the event of an information security incident related to the applicable environment and hosting provider services. Hosting provider periodically updates the ISIRP document to reflect current information security Incident response planning.
information security incident response team	The Hosting Provider team that is designated by Hosting Provider to prepare for, and respond to, information security Incidents.
information security manager	An Hosting Provider employee designated by Hosting Provider to act as a liaison regarding security issues that affects the applicable Hosting Provider line of business. Each Hosting Provider line of business unit may have an Information Security Manager.
infrastructure	The combination of Hosting Provider's Data Center, hardware, servers, virtualization, operating system, storage, and networking equipment, used for the delivery of Hosting Provider Services.
infrastructure requirements	Information provided by the client in the Infrastructure Requirements Document regarding the Infrastructure for the Hosting Provider Services, such as capacity and usage information.
infrastructure requirements document	The document required by Hosting Provider in which Customer specifies its Infrastructure Requirements.

Term	Definition
internet protocol security	A security framework based on open standards and designed to protect communications over Internet Protocol networks through the use of cryptography.
least privilege	A system-oriented approach to access control under which user permissions and system functionality are specifically evaluated and access is restricted to the resources required for users or systems to perform their respective duties.
maintenance code release	Any Release designed to address the manner in which hosting provider programs process data or operate, and neither contains new functionality nor changes the results of processing data. Examples of Maintenance Code Releases are Individual Patches, tool updates, tax updates, bug fixes, and maintenance packs. The term Maintenance Code Release specifically excludes any Service Pack or Upgrade.
maintenance window	Depending on the context, a Weekly Maintenance Window, a Semiannual Maintenance Window, or any other period of time scheduled by Hosting Provider for a Planned Outage within which Hosting Provider may perform maintenance activities on Infrastructure.
major maintenance window	The agreed to time when Hosting Provider can perform system maintenance/configuration changes on Production Environment that will reduce or make the Production Environment unavailable.
major release	An upgrade that is designated as follows: (i) for all Hosting Provider Programs by the identifying first number of the Upgrade (e.g., change from Application 9.x to Application 10.x), and (ii) for PeopleSoft Enterprise Programs, by the identifying first number of the Upgrade after the decimal place (e.g., change from version 9.1 to 9.2).
major upgrade	A major release.
management link	The type of Network Connectivity used for Administrations Services.
Medicaid information technology architecture	A federal initiative of the United States Center for Medicaid & State Operations (CMSO) intended to foster integrated business and IT transformation across Medicaid, and to improve the administration of the Medicaid program in all states. MITA is a national framework intended to support improved systems development and health care management for the Medicaid enterprise.
Medicaid Statistical Information System	Prior to Federal fiscal year 1999, the Medical Statistical Information System (MSIS) were a voluntary program and those states participating in the MSIS project provided data tapes from their claims processing systems to the Centers for Medicare & Medicaid Services (CMS) in lieu of the hard-copy statistical 2082 tables. However, in accordance with the Balanced Budget Act (BBA) of 1997, all claims processed are submitted electronically through MSIS.
Medicare	Medicare is a national social insurance program, administered by the U.S. Federal Government, which guarantees access to health insurance for Americans ages 65 and older and younger people with disabilities as well as people with end stage renal disease.
Migration Readiness Assessment	A document that contains Hosting Provider's assessment of Customer's Infrastructure and that is used for creating a Production Environment that conforms to Hosting Provider's Certified Configuration.

Term	Definition
Minor CEMLI Enhancement Request	A request by Customer, via Hosting Provider's Change Management process, for Hosting Provider to enhance a CEMLI to an Hosting Provider Program within Customer's Environment, where such enhancement is designed to improve the functionality of the CEMLI and does not require Hosting Provider more than 40 person hours to perform. A "person hour" is one hour of work performed by one Hosting Provider resource.
minor maintenance window	The agreed to time when Hosting Provider can perform system maintenance/configuration changes on Production Environment that will have no effect on Production Environment availability.
minor release	An upgrade that contains new functionality and that is upwardly compatible to an earlier Release of the applicable Hosting Provider Program.
My Hosting Provider Support	Hosting Provider's web-based customer support system under which Hosting Provider provides technical support for Hosting Provider Programs and by which Customer may submit Service Requests. Customer obtains the use of My Hosting Provider Support by purchasing technical support services from Hosting Provider.
non-production environment	An instance that is specifically configured for Customer's use (or, as applicable, Customer's Implementer's use) of the Hosting Provider Programs for non-production activities that relate to the Hosting Provider Services, such as development, training, data conversion, and CEMLI maintenance.
North American Data Center	The U.S. data center.
OneGate	OneGate is a Commercial off the shelf (COTS) software that incorporates rule sets, SOA composites, functional portlets and customized Siebel objects, which in the implementation of the Vermont HBE will lead the consumer through the process of shopping for health insurance.
optional third-party software	Any third-party software not supplied by hosting provider.
outage	A complete loss of access to and use of the Production Environment, the Production Support Environment, the Non-Production Environment, or the Pre-Production Environment. An Outage may be a Planned Outage or an Unplanned Outage.
overall program plan	A project plan prepared by Hosting Provider that outlines the necessary tasks, task performance schedules, and the roles or individuals required to perform such tasks, for a transition.
partial refresh	The process of copying a database and/or a portion of application code from a Source Environment to a Target Environment and making the required configuration Changes within the database and application tier of the Target Environment.
password manager utility	An hosting provider-proprietary tool used by Hosting Provider to manage passwords and provide controlled-access to database and application passwords to those end users who have named Linux/Windows operating system accounts.
PeopleSoft applications	PeopleSoft Enterprise CRM, Enterprise Financials, Human Resources, Portal, Performance Management, Learning Solutions.
performance management	A subset of Hosting Provider Services under which Hosting Provider manages the speed of transaction response of the Hosting Provider Programs, and batch job execution in the Production Environment.

Term	Definition
periodic maintenance plan	A written plan prepared and maintained by Hosting Provider that generally describes the schedule for the application of Changes, new Releases, and Upgrades, to the Production Environment.
planned outage	An Outage scheduled by Hosting Provider during which Hosting Provider performs system maintenance and other activities for the Environment and the Hosting Provider Services.
point release	A minor release.
Post Production Go-Live	The period following the Production Go-Live of the Production Environment.
Pre-Production Environment	The instance within the Environment that mirrors Production in capacity, configuration in every way for the sole purpose of applying and testing all changes, hot fixes, patches, code release and/or upgrades before releasing changes to Production.
primary site	The Data Center at which Customer's Environment is located and at which Hosting Provider delivers Hosting Provider Services. The Environment and the delivery of Hosting Provider Services may be relocated to a Secondary Site in the event of a Disaster.
priority level	The classification used in conjunction with Severity Level to identify the priority of a Service Request with respect to the Hosting Provider Services.
problem	The collection of multiple recurring Incidents that exhibit common symptoms and that originate from a single, common cause, and for which the cause is unknown, or (ii) a single Incident that results from a single error and that has an on-going significant impact on the Hosting Provider Services (such as an Unplanned Outage), and for which the cause is unknown.
Problem Management	A subset of Hosting Provider Services under which Hosting Provider manages Problems within Customer's Environment.
Production Assessment	A document that is prepared by Hosting Provider prior to Production Go-Live and that contains Hosting Provider's assessment of the compliance of Customers' Environment with Hosting Provider Hosting Provider standards.
Production Environment	The instance within the Environment that is specifically set up and configured to support Customer's use of the Hosting Provider Programs, and used by Customer, for production operations. The Production Environment consists of the collection of database servers, application ("mid-tier") servers, and other servers comprising Customer's transactional production system.
Production Go-Live	The date on which Customer first commences use of the Production Environment for production operations (i.e., to process live data).
Production Ready Status	A designation given by Hosting Provider to Customer indicating that Customer may commence use of a Production Environment for production operations.
Production Support Environments	The TEST and DEMO Environments that are specifically set up and configured in a manner that closely resembles the Production Environment, and that are used, as applicable, to troubleshoot and facilitate Incident resolution, to test changes prior to promotion of such changes to the Production Environment and for demonstration purposes.
Program Responsibilities	The functionality that a User may use within the Hosting Provider Programs.

Term	Definition
Program-Specific Application Management	The Application Management Services specifically applicable to a certain set of Hosting Provider Programs.
Program-Specific Standards	The Standards Schedule specifically applicable to a certain set of Hosting Provider Programs.
Provisioning Release Plan	A document or set of documents prepared by Hosting Provider that describes the installation and configuration of hardware and software required for the Hosting Provider Environment.
Recovery Point Objective (RPO)	Hosting Provider's objective for the potential maximum time period of data loss, calculated from the onset of a Disaster.
Recovery Time Objective (RTO)	Hosting Provider's objective for the potential maximum period of time between the declaration of a Disaster and the point at which Customer can resume production operations in the Production Environment.
referral	An OK from the primary care physician for the patient to see a specialist or get certain services. In many HMO plans, the insured person needs to get a referral before they get care from anyone except the primary care physician. If the referral is not received, the HMO may cover resulting expenses.
refresh	The process of copying a Customer's database files, application files, and/or the application metadata and artifacts from a Source Environment to a Target Environment and updating related configurations within the Environment.
release	A software change or set of software changes, to Hosting Provider Programs, that is provided to Customer by Hosting Provider's Support Services organization as part of Hosting Provider's technical support services. The term Release includes Upgrades and Maintenance Code Releases.
release management	A subset of Hosting Provider Services under which Hosting Provider manages the deployment of Releases into Customer's Environment.
release plan	A document that details the planning, testing, and executing of proposed Releases. The Release Plan includes a Back Out Plan.
required software	Third-party software for which hosting provider requires Customer to separately purchase a license and technical support in connection with Hosting Provider Services for certain Hosting Provider Programs, and for which Hosting Provider expressly performs Hosting Provider Services.
restore	The process of copying a database and/or full application code from a disk or tape backup to the Environment from which the copy was made.
sandbox or sandbox environment	A type of Production Support Environment that is used by Customer for the purposes of prototyping, alternative analysis, proof of concept. This environment is not in the development life cycle.
server	A computing platform with defined processing power, memory capacity, and operating system. The Server may be implemented as a virtual or shared allocation from one or more physical computing platform(s).
server for customer managed applications	A Service Option under which Hosting Provider initializes and installs operating system software on an Hosting Provider-provisioned server to enable Customer to access, manage, and monitor such server.

Term	Definition
server for hosting provider managed applications	The Service Option for Computer and Administration Services under which a server is added by Hosting Provider to Customer's Environment to support additional environments.
service interruption	A material reduction of the functionality and responsiveness of a component of the Production Environment, a Production Support Environment, or a Non-Production Environment, such that Customer's ability to use the Hosting Provider Services to process one or more of Customer's key business transactions is significantly impacted.
service pack	A minor release.
service request	A request for assistance with the Environment or any component thereof submitted to My Hosting Provider Support or the Hosting Provider Service Desk.
service-specific application management	Program-Specific Application Management Services Schedule.
service-specific standards	Program-Specific Standards.
seven conditions and standards (CMS)	Issued by the Centers for Medicare & Medicaid Services (CMS) to foster better collaboration with states, reduce unnecessary paperwork, and focus attention on the key elements of success for modern systems development and deployment.
severity level	The level of criticality assigned to a Service Request based on defined criteria.
Siebel CRM Program	An Hosting Provider Program identified by Hosting Provider as an Hosting Provider Siebel CRM Program. Hosting Provider performs Hosting Provider Siebel Programs.
site	A website for which Hosting Provider Services for all Programs.
site go-live	The date on which a Site first becomes available to the general public and transactions can be processed on the Site.
source environment	A Production Environment, Production Support Environment or Non-Production Environment from which data for a Refresh is obtained.
special benefit networks	Provider networks for particular services, such as mental health, substance abuse, or prescription drugs
staging or staging environment	Pre-Production Environment.
standard industrial classification (sic)	Coding of businesses by their product or service. This classification is used in group insurance in determining rates for various industries.
standard operating procedures	Hosting Provider's set of security-focused processes that set forth the standard procedures, activities and tasks performed by Hosting Provider resources while delivering Hosting Provider Services to Hosting Provider customers.
standby environment	An Environment located at the Secondary Site that closely resembles the capacity and performance capabilities of the Production Environment at the Primary Site, and that may be used for production operations in the event of a Disaster.
super user	An End User that the customer has assigned to assist other End Users in the use of Hosting Provider Services. Super Users serve as the liaison between End Users, Customer's Help Desk, and the Hosting Provider Service Desk.

Term	Definition
supplemental services	Service Options.
supported CEMLIs	CEMLIs that were reviewed and approved by Hosting Provider as part of the Production Assessment process and for which Hosting Provider provides Hosting Provider Services in the Production Environment.
systems administrator	An Hosting Provider resource assigned by Hosting Provider to perform tasks to maintain the Environment as part of the Hosting Provider Services.
target environment	The Production Environment, Production Support Environment or Non-Production Environment to which data for a Refresh will be applied.
technology stack	Any database, operating system and middleware used in an Environment.
test or test environment	A type of Production Support Environment that is used by Hosting Provider for testing and validating Changes prior to promotion to the Production Environment as well as for recreating events and duplicating issues occurring in the Production Environment for the purposes of troubleshooting and facilitating Incident resolution.
third-party software	Any software from a Third-Party Software Vendor, which is not provided by Hosting Provider as part of the Hosting Provider Services, and any software developed or provided by Customer.
third party vendor	A provider, other than Hosting Provider, of products or services.
tools	Software scripts provided and used by Hosting Provider in the Environment for the delivery of Hosting Provider Services (e.g., to perform environment clones, password changes, service monitoring, and file system maintenance).
training or training environment	A type of Production Support Environment that is used by Customer for the purposes of training.
transaction link	The type of Network Connectivity used for Computer and Administration Services.
transition	The activities completed and modifications made to a Customer's system and/or to an Hosting Provider Environment as part of Transition Advisory Services.
transition advisory services	A service performed by Hosting Provider to convert a Customer's system to an Hosting Provider Environment or to make significant Changes (such as an Upgrade) to an existing Hosting Provider Environment.
U.S. Data Center	Hosting Provider's Data Center(s) located in the United States.
UAT Environment	A type of Production Support Environment that is used by Customer for testing User Acceptance and validating Changes prior to promotion to the Production Environment.
United States Data Center	U.S. Data Center
unplanned outage	An outage that was not scheduled by Hosting Provider or Customer and is caused by an Incident or Problem.
upgrade	A new Release of an Hosting Provider Program that contains new functionality and/or under which the results of how such program processes data differs as compared to an earlier Release of such program.
user	An end user.

Term	Definition
user acceptance testing	A formal testing process that is part of the Change Management Process conducted by Customer of a specified Change to the Environment for the purpose of determining whether such Change meets identified acceptance criteria.
Weekly Maintenance Window	The period of time, to occur once per week, during which Hosting Provider may schedule Planned Outages to perform maintenance activities on Infrastructure. The maintenance activities typically performed by Hosting Provider during a Weekly Maintenance Window involve components of the Infrastructure that are used to deliver Hosting Provider Services to Hosting Provider's customers generally, including to Customer.
Windows Software Update Service	A Microsoft service provided to Hosting Provider under which Microsoft delivers current security updates to Hosting Provider-owned Windows-based computers.
X12 Standards	In 1979, the American National Standards Institute (ANSI) chartered the Accredited Standards Committee (ASC) X12 to develop uniform standards for inter industry electronic exchange of business transactions-electronic data interchange (EDI). ASC X12 provides a single standard with a single architecture, producing a common, uniform language for electronic communications. The X12 Standards will be followed for EDI's developed within the Vermont HBE project.

23 Acronyms

The following table lists acronyms and their definitions introduced in this document.

Exhibit 200: Acronyms

Acronym	Definition
ACA	Affordability Care Act
BRE	Business Rules Engine
CI	Configuration Item
CM	Configuration Management
CMS	Centers for Medicare and Medicaid Services
COTS	Commercial Off the Shelf Software
CRUD	Create, Read, Update and Delete; commonly used in reference to database operations.
DBMS	Database Management System
DDD	Database Design Document
DNS	The translation of a URL text address (e.g., state.vt.us) into a numeric Internet address (e.g., 200.213.11.6).
DR	Disaster Recovery
DVHA	Department of Vermont Health Access
EA	Enterprise Architecture
EDBC	Eligibility Determination and Benefits Calculation
GUI	Graphical User Interface
ICD	Interface Control Document
IRS	Internal Revenue Service
JSP	Java Server Pages
LAN	Local Area Network
LDM	Logical Data Model
MAGI	Modified Adjusted Gross Income
MDM	Master Data Management
MEMC	Medicaid Eligibility and MITA Compliance
MITA	Medicaid Information Technology Architecture
MMIS	Medicaid Management Information System
SDD	System Design Document
SDLC	Software Development Lifecycle
SLOC	Source Lines of Code
SNAP	Supplemental Nutrition Assistance Program

Acronym	Definition
SOA	Service-Oriented Architecture
SR	A Service Request.
SSL	A “secure sockets layer,” a commonly used protocol for managing the security of a data transmission on the Internet. SSL uses a public-and-private key encryption system, which also includes the use of a digital certificate.
UAT	User Acceptance Testing.
VPN	VPN means Virtual Private Network.
WAN	Wide Area Network
WSUS	WSUS means Windows Software Update Service.