

*Colorado Department of
Health Care Policy and Financing*



In collaboration with:

*The Governor's Office of Information Technology,
Department of Human Services and Colorado Counties*

submits:

Implementation Advanced Planning Document (IAPD)
Eligibility Determination System

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1 Statement of Need and Objectives

1.1 Background

The Patient Protection and Affordable Care Act¹ (PPACA), signed into law March 23, 2010, will result in significant changes in Medicaid eligibility and enrollment rules. Under the new law, most Americans whose income is up to 133 percent of the federal poverty level (FPL) will be eligible for Medicaid in 2014, and most gaps in eligibility for low-income adults will be eliminated. Just as significant, the rules for determining eligibility and the process for enrolling individuals will change. As a result, the State of Colorado is anticipating adding approximately 130,000 new individuals to public medical assistance programs and another 380,000 will obtain private insurance, either through their employer, individual market, or through the Colorado Health Benefits Exchange.²

The Colorado Department of Health Care Policy and Financing (the Department) administers the Medicaid and Child Health Insurance Program (operating as Child Health Plan Plus or CHP+), as well as a variety of other programs for Colorado's low-income families, the elderly and persons with disabilities. The Department is the State Medicaid Agency for the State of Colorado.

On December 30, 2011 the Department received approval of a Planning Advanced Planning Document from the Centers for Medicare and Medicaid Services (CMS) to secure staff and consulting resources to research, analyze, and plan the Department's participation in and collaboration with Colorado's Health Benefit Exchange (COHBE). In addition, the Department used the funding to examine options to modify and utilize as necessary the Colorado Benefits Management System (CBMS) to meet the CMS Seven Standards and Conditions and to comport with PPACA.

The Department is collaborating closely and partnering with the Governor's Office, Office of Information Technology (OIT), Department of Human Services (DHS), Colorado Counties, COHBE, Department of Education (CDE), and Department of Public Health and Environment (CDPHE) to provide an eligibility and enrollment process that is efficient, effective, and elegant for Coloradans. In developing this Implementation Advanced Planning Document (IAPD), the Department worked in collaboration with its partners and stakeholders.

¹ Public Law 111-149, Patient Protection and Affordable Care Act, March 23, 2010, 124 Stat. 119

² [A Half Million Newly Insured: Is Colorado Ready? \(December 2011\) Colorado Health Institute](#)



1.1.1 Colorado Benefits Management System

In September 2004, the State of Colorado implemented Colorado Benefits Management System (CBMS). Its purpose was to replace six aging legacy systems supporting various state-administered welfare programs with a single system using current technologies. CBMS was designed, and is currently used, to determine an applicant's eligibility for public assistance and calculates benefits (e.g., the amount of food and cash assistance available to a client) for twelve program groups including Medicaid, Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), and Colorado Works. In addition, CBMS is utilized for client notification, administrative reporting and to support the State supervised county administered eligibility and benefits model.

By replacing the legacy systems, the expected goals of CBMS were to provide better service to clients and assurance that the state's welfare programs were being administered properly. Since implementation, the performance issues with CBMS have been well documented. Today, technological and resource limitations continue to plague the system and obstruct Colorado citizens from receiving benefits efficiently, effectively, and timely. With state and county caseloads bulging from the economic downturn, the potential for more than an additional hundred thousand Coloradans to become eligible for medical assistance through new programs taking effect in 2014, and the availability of enhanced federal funds - now is the time to make a significant investment to improve and modernize CBMS.

CBMS is managed by OIT for the Department and DHS. In 2008, Deloitte Consulting (Deloitte) was selected to maintain the system. The governance of CBMS is managed through two groups, who meet on a weekly or bi-weekly basis. The Integrated Project Team has two representatives (one of which is an Office Director or Division Director) from OIT, the Department, DHS, Deloitte, and two county representatives. The three Executive Directors of OIT, the Department, DHS, along with county representation through the Colorado Human Services Directors Association (CHSDA) and Colorado Counties, Inc. (CCI) serve on the Executive Steering Committee to provide strategic guidance for CBMS. These teams allow executive and senior level staff to be directly involved in the ongoing development and monitoring of CBMS.

Over the previous several months, OIT, the two Departments, county representatives, and Deloitte have worked through a collaborative effort to develop a plan to stabilize, upgrade, modernize and increase the reliability of the system and operations. The plan improves and modernizes CBMS by utilizing advances in technology and proven methods for increasing the capacity and worker productivity to speed eligibility determinations and benefits delivery. The plan includes the following specific actions:

- Enhance the online application (PEAK) to allow real-time eligibility determinations to minimize workload at county and medical assistance sites.
- Convert hard coded eligibility and financial calculations into a modern rules engine, which improves system functionality and reduces time for future system changes.
- Redesign client notification to reduce the volume of paper notices received by clients and increase the accuracy of those notices.



- Add infrastructure and web based access to CBMS to reduce the demand on the current Citrix servers, which will increase system performance for the county user.
- Add infrastructure to allow more concurrent users to access CBMS, as the current environment does not have sufficient capacity to support the existing number of users.
- Provide the ability to troubleshoot performance issues on an ongoing basis to eliminate system performance issues that cause a degradation of performance (slowness) across CBMS, transactions taking longer than usual, and potentially system freezes.
- Upgrade the current infrastructure (servers, monitoring tools) to increase disaster recovery capability to meet current and future demands.
- Design flexible workflow in CBMS that allows the county user to work in a more efficient manner while only displaying the necessary information available to complete a task, increasing the user's productivity.
- Move to a Cloud Computing model that will allow the State to consolidate CBMS server infrastructure and operations into a managed and on-demand environment.
- Build web services interfaces that will give CBMS more interoperability options to other systems and interfaces.
- Allow the current processing that occurs to determine benefits and produce reports to run without negatively impacting CBMS performance.
- Provide a user log-on routine that does not require users to go through multiple authentications to access CBMS reducing security risks.
- Allow county users to have dual monitors to increase work productivity.
- Implement changes for outstanding audit findings from federal regulators to eliminate federal sanctions.
- Expedite improvements to mitigate a potential lawsuit by three legal groups that represent clients who have been impacted by delays in eligibility determination.

As Colorado prepares for health care reform, it has become clear that certain changes are essential for existing systems and business processes in order to provide our citizens with efficient and effective services. Building on the existing capacity to provide same-day decisions on medical benefit eligibility, as well as greatly improving determination timeframes for all public benefit programs, is a necessity for the state.

In May 2012, the Colorado General Assembly provided \$23,225,332 in funding through SB 12-1339 to improve and modernize CBMS. Additional funding starting in July 2013 will become available as the state agencies make progress toward improving and modernizing CBMS. Through these funds, the Department has the available state funds to match the federal funds requested through this IAPD.



1.1.1 Colorado Health Benefits Exchange

In 2011, the Colorado General Assembly enacted the Colorado Health Benefit Exchange Act (Senate Bill 11-200), which recognized the federal requirement, pursuant to the Affordable Care Act, that each state establish or make significant progress toward creating a Health Benefit Exchange by January 1, 2013. The Colorado Health Benefit Exchange Act recognizes the General Assembly's intent to create a Health Benefit Exchange (Exchange) that will fit the specific needs of Colorado's Citizens and that will increase access, affordability, and choice for individuals and small employers purchasing health insurance in Colorado. To that end the legislation created a nonprofit, incorporated public entity known as the Colorado Health Benefit Exchange, which is charged with the directing the implementation of a Exchange in Colorado.

The Board of Directors of the Colorado Health Benefit Exchange includes representation from the Department, and the Department has been collaborating with the Health Benefit Exchange as it works toward the implementation of the Exchange solution.

In accordance with PPACA, Colorado's Exchange will commence operation in October 2013. The Exchange will provide a marketplace for individuals and small businesses to access health insurance options, compare policies and premiums and ultimately purchase health insurance (with a government subsidy, if eligible).

In coordination with this request for funding, COHBE has obtained a Level One Establishment Grant for implementing the Exchange systems, operations, and staffing. The grant award was for \$17,951,000³. COHBE's Level One grant will also fund COHBE's share of solution components that will be cost allocated between COHBE and the Department to implement the minimal interoperability requirements between the Exchange and state systems to support a "no wrong door" eligibility experience. Under the funding requested by this IAPD, State staff, and contractors will focus on designing business processes and technology solutions that will integrate the State's rebuilt eligibility system with the Exchange. Through this effort, the Department and COHBE will ensure seamless integration of the Exchange with its online eligibility determination systems.

1.1.2 CO-CHAMP

In 2009, Colorado embarked on a project called CO-CHAMP (Colorado's Comprehensive Health Access Modernization Program), funded through the Health Resources and Services Administration (HRSA) State Health Access Program (SHAP) grant. The Department intends to continue some of the initiatives in the spirit of Eligibility Modernization⁴ and Maximizing Outreach, Retention and Enrollment (MORE) that began with CO-CHAMP through this IAPD as described below.

³[Creating a New Competitive Marketplace: Health Insurance Exchange Establishment Grants Awards List; Healthcare.gov](http://www.healthcare.gov)

⁴[Public Knowledge, LLC, Colorado Eligibility Modernization Report \(December 2008\)](#)



Eligibility Modernization is a Department initiative to streamline the application process by replacing paper documentation with electronic data where possible; develop web-based services for clients; and create interfaces to other State and Federal systems to ease data exchange, making it easier for workers to process applications and clients to apply for public health insurance programs. Through this initiative, the application process will become easier to navigate, application processing times will be dramatically reduced resulting in earlier access to care, and clients will have increased satisfaction with Medicaid and CHP+. Within Eligibility Modernization, the Department automated verification of citizenship and identity (through the Social Security Administration), identity (through the Department of Motor Vehicle) and income (through the Income Eligibility Verification System). The Department is implementing citizenship verification (through Department of Public Health and Environment).

In January 2012, the Department began working with its partners and stakeholders to develop a plan to meet PPAA deadlines by October 2013. Due to the rapid timeline to comply with PPACA, the Department purchased a COTS rules engine in 2012 using HRSA SHAP funds. Implementation of the rules engine will provide the Department the necessary flexibility to adapt quickly to policy changes and business process changes and to support interoperability with the Exchange as required by federal regulations.

Through the MORE initiative, the Department is working to design, develop, and implement a comprehensive outreach and communication plan to generate awareness of the availability and expanded eligibility of health care coverage programs and to teach Coloradans how to access health care in appropriate settings. Through this work, Coloradans are learning about coverage programs, how to apply and how to access health care services which leads to healthier populations.

1.2 Statement of Purpose

The Department is submitting this IAPD to request enhanced 90 percent federal financial participation (FFP) to modernize CBMS so that it will facilitate efficient, effective and elegant enrollment into and administration of medical assistance programs through an integrated system and to ensure seamless and minimal interoperability with the Exchange.

The Department is committed to an integrated eligibility system across public assistance programs and will utilize the guidance offered in the January 23, 2012 Tri Agency Letter on cost allocation requirements set forth in and the exception granted to OMB Circular A-87⁵. The exception granted in the guidance allows human services programs to utilize systems designed specifically for determining a person's eligibility for medical programs without sharing in the common system development costs, so long as those costs would have been incurred anyway to develop systems for the medical programs. Many of the enhancements to the state systems described herein will provide dual benefit to the state's human services programs

⁵[State Medicaid Director Letter \(1-23-12\)](#); [OMB Circular A-87](#)



The Department adopts the national vision for health care reform to provide consumers and users with a World Class Experience of real-time online eligibility determination and has developed a comprehensive vision and coherent phased strategy to leverage federal, state and other funding, as it becomes available, to improve systems and business processes across multiple programs and agencies. Implementation of this strategy will streamline assistance processes, decrease on-going administrative costs, and greatly enhance client service and satisfaction.

The Department intends to implement the changes outlined in this IAPD to meet the Seven Conditions and Standards⁶ required by the Centers for Medicare and Medicaid Services (CMS) for enhanced federal funding. These standards exist to “foster better collaboration with states, reduce unnecessary paperwork, and focus attention on the key elements of success for modern and flexible systems development and employment.”

1.2.1 Mission and Vision

The CBMS Executive Steering Committee’s vision is to be recognized as a leader for:

- Establishing an effective, efficient, and elegant benefits delivery system that enables all eligible Coloradans to access medical, food, cash and other assistance through multiple entry points and to move seamlessly between programs; and
- Strengthening the relationship with and enhancing the capacity of counties and stakeholders to tackle the case backlog, promote innovation, and develop best practices for benefits delivery.

Through the funding made available with this IAPD, the Department will minimally integrate state systems with the Exchange, enhance existing systems to improve client service and increase administrative efficiencies. The IAPD will help the Department realize this through a technologically advanced, easy-to-use online service, which provides automated and accurate eligibility determinations for the state’s medical programs and improves the efficiency of processes that cannot be fully automated. By transitioning to a more modular architecture the state systems will be more flexible and responsive to changes in federal and state regulations and policies.

1.2.2 Goals and Objectives

The Department’s goals as they apply to the IAPD are to increase the number of insured Coloradans and to increase access to health care. Through the projects described in this IAPD, the Department will ensure that eligible Coloradans are accurately and timely enrolled so that they can appropriately access health care. The projects focus on improving core business processes. New technologies will be implemented and leveraged across multiple core business processes to achieve compound gains in efficiency and quality. With the enhanced funding, the Department aims to achieve the following objectives:

⁶[Enhanced Funding Requirements: Seven Conditions and Standards, Centers for Medicare and Medicaid Services](#)



- Support real-time screening, eligibility determination, routing and enrollment whenever feasible, such that the application process requires no assistance for 90% of applicants.
- Ensure that state systems have the required minimal interoperability with the Exchange to create a seamless consumer experience;
- Implement a unified access management system with streamlined administration for all online users, i.e. assisters and eligibility workers;
- Develop interfaces to seamlessly and securely share and communicate application data and decisions across systems;
- Eliminate the duplication of, improve accuracy of, and simplify changes to all Medicaid and CHP+ eligibility rules by the implementing a Commercially-available Off-The-Shelf (COTS) modular rules engine;
- Streamline and improve workflow and business processes for eligibility determinations that require manual intervention;
- Simplify client communications and notices, eliminate confusion and unnecessary noticing, and offer alternate/electronic notification options;
- Develop, support and maintain a robust and dynamic data analytics system, allowing for performance management, public transparency, policy analysis, and program integrity and program evaluation;
- Rebuild the eligibility system’s architecture to ensure a stable, sustainable, flexible, and quickly adaptable platform;
- Ensure rapid information technology (IT) implementation for any and all changes, including but not limited to: program operations, policy and technology, enhancements, maintenance and upgrades;
- Build a solution that will meet the seven CMS conditions and standards that were developed to ensure that states are making efficient investments and improving the likelihood of successful implementation and operation; and
- Support MITA initiatives that provide a common framework to focus on opportunities to build common services by decoupling legacy systems and processes, liberating data previously stored and contained in inaccessible silos, and increasing the State’s ability to keep up with the rate of change demanded by the changing business.



1.2.3 Technology Assessment

In 2011, Colorado engaged in a technology assessment with Oracle to better understand how to leverage the Department’s legacy technology with more modern technology according to industry best practices. The goal was to create a maintainable, comprehensive, flexible and scalable technology environment, i.e. a next generation eligibility system, that promotes modular components and material returns on investment.

Twelve key business process requirements were established to support this multi-year roadmap and strategy, which in turn enables growth, agility, efficiency and excellent client service:

- Utilize data to improve operational decision making, accountability and perception.
- Reduce complexity and lower total cost of ownership.
- Enable collaboration and sharing of information.
- Become more proactive and less reactive.
- Promote productivity with self-service capabilities.
- Support a mobile workforce and constituency.
- Enable real-time system integration, speed, and availability of data.
- Provide consistent and complete security.
- Ensure scalable, available, maintainable and agile technology and systems.
- Leverage a common, centralized infrastructure and technical services.
- License and leverage technology efficiently and flexibly.
- Maintain the skilled staff, partners and knowledge to support the organization.

This next generation eligibility system environment will improve delivery of services to citizens, counties, and partners and produces operational efficiencies.

1.3 Description of Business Needs

1.3.1 Current Landscape

As of March 2012, 632,511 clients were enrolled in Medicaid and 68,729 clients were enrolled in the Child Health Plan Plus (CHP+). Like many states, Colorado has a complex and sprawling web of people, processes and technologies that comprise its medical eligibility and enrollment service line. Despite the challenges of system limitations and organizational alignments Colorado has been steadily improving service delivery and administrative efficiencies.

Forty-seven of Colorado’s 64 counties are designated as rural. To ensure that Coloradans have access to in-person assistance when applying for medical programs Colorado uses several types



of assistors. There are 64 county departments of human/social services, 269 certified application assistance sites (CAAS), 130 presumptive eligibility (PE) sites and 8 medical assistance (MA) sites. There are approximately 4,400 individuals who process applications statewide. Applicants receive in-person and phone assistance through the applicant's local county office, a CAAS, PE or MA site. Each site's level of in-person and phone support varies in terms of response time, adequacy of support and other client support quality measures. This diversity of organizations spread across the state provides the large number of access points needed to adequately support a "high-touch" medical application process.

In an effort to provide a self-service option, Colorado launched its online application PEAK (available at Colorado.gov/PEAK) in 2010 and 2011, allowing individuals to submit an application through the website. The online application is routed to an eligibility site inbox for data entry and processing. Although PEAK marked advancement, its functionality is currently limited (relative to the functionality of a full self-service portal). Significant effort on the part of Community Based Organizations (CBOs), state agencies, and counties over the last two years has focused on creating a network of local access points through which Coloradans can conveniently initiate their application for public health, nutrition, and financial self-sufficiency benefits. This network of local access points includes a broad array of organizations such as schools, clinics, food banks, childcare centers, churches, recreation centers, and libraries. The intention is to make accessing benefits as easeful as possible. By enabling Coloradans to apply from locations that they already frequent, such as their daughter or son's childcare, barriers are eliminated and access is increased. To date, more than 800 organizations in Colorado have participated in PEAK training. These organizations are trained to help clients access the full range of health and human service benefits. Additionally, CAAS also utilize PEAK to help clients apply for health and/or human service benefits.

Colorado also automated interfaces to verify citizenship, identity and earned income through use of the Social Security Administration (SSA) and Department of Labor Income and Eligibility Verification System (IEVS) interfaces. The interfaces helped reduce the time to process applications and the need for paper documentation from clients.

It takes between one to two hours for an eligibility worker to process an application that was received complete (complete, includes all supporting documentation and verifications). Eligibility sites receive state-provided leased computers with a single monitor to operate the eligibility determination system. Workflow management for eligibility application processing varies across the state and the existing decision support system (DSS) and workflow reports are insufficient. Extensive paper case file documentation is typically stored at the eligibility site where the applicant submitted the paper file. As a result, a single case file for an individual can cross multiple sites for information that was received at different points in time. Each site may have a different process for storing and filing. Colorado has embarked upon a business process improvement initiative funded through a grant from the Colorado Health Foundation. This approach takes private industry LEAN and Six Sigma principles and applies them to application processing. While these efforts have shown dramatic improvements, further improvements are limited by technology and varied processes statewide.



Colorado’s eligibility system houses over 10,000 different types of correspondence, consisting of forms, notices and speed letters. In addition to the system-generated letters, eligibility sites create their own letters to supplement and/or replace the system-generated letters. The complexity of the system has created duplicative, confusing and contradictory information, requiring human intervention and assistance to explain the intent and purpose of the notice that was sent. Changes to client correspondence within the current infrastructure are cumbersome, complex and confusing.

The eligibility system currently has an *Eligibility Determination and Benefit Calculation* (EDBC) module, which is a custom-built decision table based rules engine. As such, there is no product and service support.

Figure 1 illustrates the current high-level eligibility processes. These core processes support multiple state programs in a relatively tightly integrated fashion. Tight integration creates complexities and delays in making changes to support various program changes. Changes in one part of the system may have unintended consequences to other parts of the system.

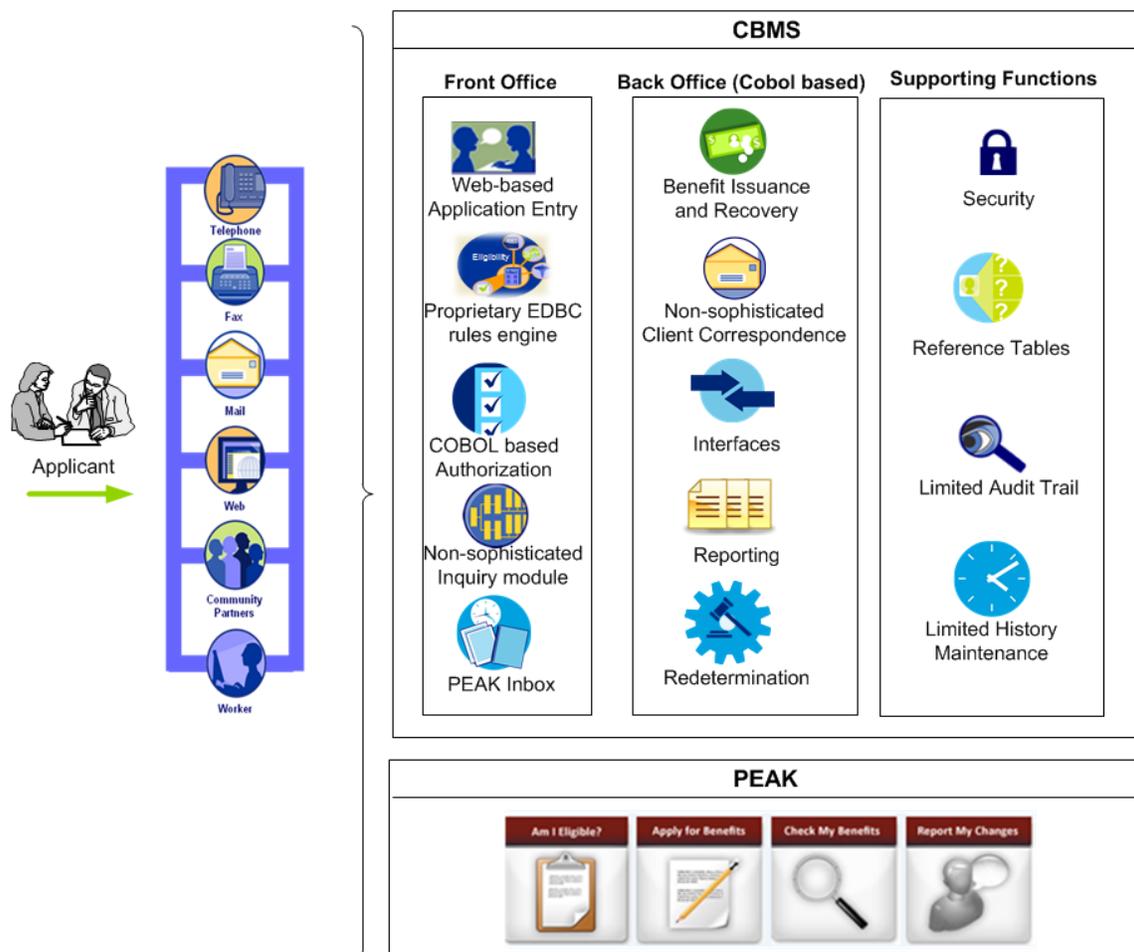


Figure 1. Eligibility System - Current



1.3.2 Roadmap/Proposed Landscape

The proposed landscape improves the overall consumer and client experience, ensuring the right level of assistance at the right time for each individual, whether it is in-person with one of the approximate 4,400 assistors statewide to self-service online through COHBE, PEAK or a mobile application. The funding provided through this IAPD will enable Colorado to leverage technology to its fullest to meet the expectations of customers. This may include but is not limited to: centralized electronic document management; modern tools and workflow processes for workers; real-time interfaces; electronic client correspondence using text, e-mail and a PEAK message box; full self-service options which include uploading needed verifications through fax, mobile or scanner; single sign-on; and streamlined and standardized business processes supported with technology.

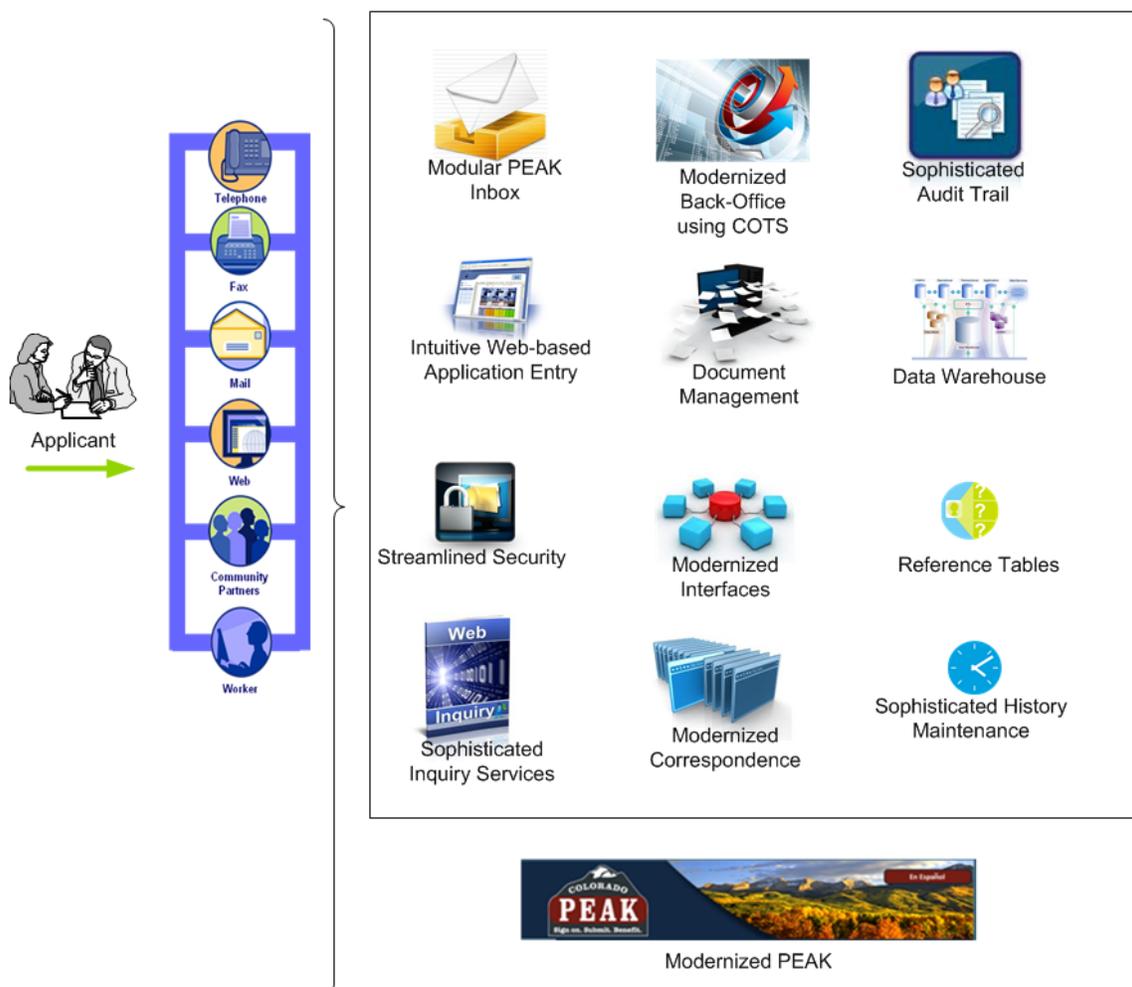


Figure 2. Eligibility System - Proposed



Figure 2 illustrates Colorado’s vision of a modern, modular, cloud-based eligibility system. This IAPD describes the technology’s benefits in terms of impacts on business processes, outcomes and customer experience. For each solution component the IAPD also describes implementation scope and cost allocation with the Exchange (if applicable).

1.3.3 Approach

The Department will develop a maintainable, comprehensive, flexible and scalable technology environment that promotes modular successes and measurable returns on investment. This next generation eligibility system will improve delivery of services to citizens, counties, and partners and produce operational efficiencies and citizen value. Without this modernized technology, Colorado will not only be unable to successfully handle the increased demand for health coverage, but will also be unable to comply with federal regulations and legislation. Colorado’s current eligibility system is a “high-touch” and intricate process. Approval of this IAPD provides Colorado the opportunity to simplify and create remarkable efficiencies in the eligibility process.

Colorado intends to modernize the current eligibility system over the course of several years using a phase approach based on priorities of meeting federal and state mandates, improving worker productivity and significantly increasing customer service.

System priorities are defined as follows:

- The highest priority is to modernize the correspondence, back office, and PEAK (for clients) and CBMS Web (for workers). This includes:
 - Streamlining PEAK and CBMS Web software applications to use a single set of rules across CBMS Web, PEAK and Exchange, supporting interoperability requirements and programs affected by Medicaid expansion.
 - Implementing master data management to enable a single sign-on for clients regardless of their path of entry (PEAK or COHBE).
 - Creating real-time interfaces to verify eligibility criteria online at application.
 - Programming the rules engine for both eligibility rules and client correspondence.
 - Installing infrastructure for the eligibility sites and the state to enable the new system capabilities and expanded enrollments.
 - Establishing a modern technology platform and associated infrastructure needed to support the new PEAK and CBMS applications.

The majority of these priority projects will enable minimal interoperability between state eligibility systems and the Exchange and will be cost allocated between the Department and COHBE.



- The next set of priority projects will include enhancements and additional modernization activities associated with the priority project described above that are required to meet the objectives listed in Section 1.2.2. For example, configuration of the rules engine and new workflows will be implemented to support remaining medical programs not initially configured. This set of priority projects will be funded with enhanced CMS match.
- The subsequent set of projects will include incorporating remaining medical programs and scope elements that were not previously implemented in due to other priorities, dependencies or funding limitations.

1.3.4 Approach - System to Modify

1.3.4.1 CBMS Application

The CBMS application is the state's core eligibility system. CBMS supports eligibility determination for multiple programs. CBMS is managed by OIT for the Department and DHS. In 2008, Deloitte Consulting was selected to maintain the system.

There are approximately 4,400 users of the CBMS. This number encompasses county, presumptive eligibility and Medical Assistance site users. The eligibility system supports all of the Medicaid and Child Health Plan *Plus* (CHP+) eligibility categories (approximately 49). Some of the non-medical programs supported by the CBMS includes Aid to the Blind (AB), Aid to the Needy Disabled (AND), Adult Protective Services (APS), Colorado Works, Supplemental Nutrition Assistance Program (SNAP), Works Programs.

CBMS is architected to use separate modules to perform specific functions. Core CBMS modules are listed below.

- The Program Eligibility and Application Kit (PEAK) module is user-facing web based application where users can enter the information and the information is screened to provide them with the potential eligibility results. The information entered in PEAK is transmitted to CBMS application.
- The Interactive Interview (II) module provides data entry screens to the users to enter the client data or review the information transmitted from PEAK module.
- The Eligibility Determination and Benefit Calculation (EDBC) module uses the information entered by users on II screens and determines the eligibility for the individuals and it also calculates the benefits.
- The Authorization (AU) module is where the users of the system can authorize the eligibility results and benefits computed by EDBC module.
- The Benefit Issuance (BI) module contains the processes that generate the issuances for the benefits authorized in the AU module and transmits to the benefit issuing agencies including the Electronic Benefit Transfer (EBT) vendor.



- Client Correspondence (CC) deals with generating and sending the correspondence to the clients informing them about the specific case action. Various processes including EDDB trigger the actions; the CC module uses these actions to generate the correspondence which is subsequently sent to the Clients.

Upon approval of this IAPD, Colorado will modify the Colorado Benefits Management System (CBMS) and the dependent systems. Modifications will include:

- Full self service options at application and renewal
- Real time determinations at application and renewal
- Refined client correspondence with a variety of electronic delivery options
- Scanning and uploading of verifications through fax, PEAK, mobile applications with optical character recognition to support “no-touch”
- Improved business processes to eliminate/minimize data entry
- Electronic document management system with a sophisticated and flexible workflow management system
- Flexible decision support system supporting the needs of both eligibility sites and the state
- Modernizing the system architecture to ensure and sustain a more nimble and modern system

1.3.5 Eligibility Applications Project

The Eligibility Applications project includes the enhanced PEAK Consumer Portal and the CBMS Worker Interface. Together these system changes will provide a “best in class” user experience for consumers and workers.

1.3.5.1 PEAK Consumer Portal

The Department considers the PEAK Consumer Portal to be the keystone of the proposed system enhancements. For this reason, this section of the IAPD describes the changes to PEAK in detail. This section also includes the plans for a phased implementation. Most of the subsequent sections of this IAPD describe support these extensive modifications to PEAK. Over the next three years, this project will help realize the State’s vision of transforming PEAK from a relatively static electronic application to a comprehensive self-service portal that is the best in class – efficient, effective and elegant.

PEAK will serve as the entry point for a self-service user experience that will enable Colorado citizens to access a real-time application for health and human services benefits. PEAK will link Coloradans to the full spectrum of health and human service programs, including the preventive public health, clinical and human services that work together to safeguard, ensure and improve



their health. To the maximum extent possible, the enhanced PEAK application will support self-service for clients, (i.e. change in life events which trigger eligibility determination or re-determination, changes to account information, etc.). It will fully integrate with CBMS and the Exchange.

To consolidate an extensive set of PEAK requirements in this subsection PEAK requirements are summarized below. PEAK modifications and enhancements will be extensive. From the user perspective, PEAK modifications will be refined through user testing very much like the UX 2014 which was designed based on in-depth understanding of the needs and desires of the prospective users and public and community-based agencies that interact with users as they flow in and out of the enrollment process. PEAK enhancements will address the need for:

- Behavioral segmentation to facilitate end users who: 1) are comfortable using web-based applications; 2) need assistance on an interim basis (i.e. training); and 3) will always rely on assistors.
- On-line, real-time help screens and tool tips that are context sensitive and recognize where the user is in the application and the likely reason they are requesting assistance.
- A user interface that optimizes use of color, typography, spacing, and the visual hierarchy and flow needed to accomplish tasks and supports ADA requirements.

The new design will include:

- End-to-end eligibility, enrollment and re-enrollment experience.
- Application data collection for the full spectrum of health and human service programs, including the preventive public health, clinical and human services that safeguard, ensure and improve their health. This includes all insurance affordability programs, i.e. Medicaid, CHP+ (and via interoperability with the Exchange eligibility for premium tax credits and cost sharing reductions).
- Multiple pathways between PEAK and the Exchange to support “no wrong door” and to address the needs of households where some members are eligible for state programs and some members are eligible for subsidized or non-subsidized private coverage obtained through the Exchange.
- The ability to accept different forms of payment for premiums, such as those required for CHP+ and other programs.
- The ability for clients to order their own benefit cards to complete the enrollment process.
- The ability for the user to switch from English to Spanish.
- Access via computers with internet access, iPad, smart phone and mobile technology.
- Audit trails and transaction logs for all activities including how many benefit cards are being requested and were issued.
- Full account management within PEAK to access and update household eligibility, enrollment, benefits, provider networks, explanations of benefits, etc.



1.3.5.1.1 Benefits

There are a multitude of benefits resulting from these enhancements that will accrue to clients and workers. Eligibility and enrollment for Family Medicaid or CHP+ will be self-service and real-time. The process will be fast and user-friendly. It will have the ability to capture, store, and transmit supplemental information required of applicants and existing clients electronically. This will significantly decrease the time required for clients to begin receiving benefits or to renew benefits. It will reduce or eliminate the need for clients to travel to and from home to an enrollment facility. This self-service capability will enable entities that assist clients enrolling in these programs to re-allocate resources to other programs with more extensive eligibility requirements and focus on case management and exceptions management. It will leverage information already captured for use in other eligibility processes. Interoperability with the Exchange will address the needs of households with some members enrolled in state programs and some members enrolled in private coverage through the Exchange.

Over time, PEAK will continue to develop and strengthen the network of local access points through which Coloradans can apply for the full spectrum of health and human service benefits. The types of organizations that serve in this capacity will continue to grow and expand. The network will include eligibility sites (i.e. kiosks in lobbies, etc.), Community Based Organizations (CBOs), clinics, libraries, food banks, childcare centers, churches, community centers, and more.

In order to enhance the quality of case management that PEAK application assistant sites can offer, a CBO portal (described in this IAPD) will be created in PEAK allowing staff to track applications through the process. This will be enabled once the enhanced Account Management capabilities are implemented which will provide role-based access and security to separate internal and external users and allow maintenance of the security profiles separately.

1.3.5.1.2 Other Elements of Implementation

To ensure that previous implementation deficiencies and missteps are not repeated, all phases of the customer-facing PEAK application will include extensive end-user testing, quality control and ongoing monitoring and evaluation will be included in the implementation process. Described below are additional implementation considerations, which we be implemented as high priority projects and maintained on an on-going basis to achieve an operational standard and culture of continuous improvement. These include: multiple channels for feedback to prioritize and drive future enhancements, dedicated on-going training, a continued governance group and dedicated operational staff to support PEAK operations.

1.3.5.2 CBMS Worker Interface

The worker interface (i.e. worker portal) will improve the enrollment and eligibility determination process and allowing eligibility workers (eligibility site personnel and other types of assistants) to interact with the appropriate modules/functionality of the eligibility system for



individuals who seek in-person assistance. The worker interface will allow for entering and reviewing data across eligibility sites. In addition, eligibility specialists should have the same high-quality experience that consumers have with PEAK, eliminating delays and freezing, streamlining fields, eliminating duplicate data entry, and minimizing alerts. The worker interface will also include a “homepage” or dashboard to enable the worker to efficiently manage a variety of tasks such as action items for follow-ups, cases to be worked, etc.

The following high-level requirements summarize the key enhancements that comprise the worker interface.

- Use intelligent “scripting” to organize the user interface to support streamlined data collection based on the programs for which the applicant is applying
- Use Business Process Reengineering to collect the minimum information necessary to support the business process related to that program
- Provide the means for an eligibility worker (or supervisor) to identify what step in the process an application is in, to view alerts and case information, and act as appropriate.

1.3.5.2.1 Benefits

As a result of this capability, worker application processing workload should be significantly reduced. Workers will function more efficiently, as only required relevant information for specific case processing will be used. Saving data previously entered will be automatic. Verification and source fields will be applicable per individual program rules. The system will guide users to the specific field needing attention, not to a general window.

As a specific example, the “apply all” function will be added to further improve efficiencies and accuracy. Currently, there is a minimum of 527 fields to complete in CBMS for a family of four applying for Family Medicaid and Food Assistance, with no expenses or income. By adding the “apply all” function to low risk, low error prone screens, users will reduce the number of data entry fields by 111, a 21% decrease in data entry time.

In addition to a reduction in workload, the upgraded system will be more intuitive and user-friendly. The system will explain errors and how to correct them in basic, user-friendly terms so that all users can understand what needs to be done. Problem solving will be minimized, as the system will be dramatically simplified. This enhancement will result in cost savings and increased efficiencies for the enrollment and eligibility process.

System performance will be upgraded so that users will experience less than a one-second delay between fields, screens, and saving those areas. Users will be able to work effectively from any place with an Internet connection and not have to rely on a special connection. Further, this will increase outreach and collaboration and coordination with community-based organizations by having the ability to place users where they are most needed or make the system accessible to users in more places.



1.3.5.2.2 Implementation and Funding Considerations

The worker interface will be implemented as the one of the highest priority projects. The overall functionality of each field and/or screen and information within those respective areas will be transformed to a look and feel that is easy, efficient and user-friendly for the end user to navigate through quickly. Prototypes options will be developed so that end users will have an opportunity provide input into different worker interface layouts. This enhanced capability benefits users of CBMS so this scope element will be fully allocated to the Department.

1.3.6 Eligibility Integrated Components Project

The Eligibility Integrated Components project consists of eight interrelated changes. This project primarily consists of implementing commercial-off-the-shelf (COTS) software integrated and configured to support the PEAK and CBMS enhancements.

1.3.6.1 Rules Engine

An eligibility rules engine is the “brains” of an eligibility application and stores the majority of business logic to determine eligibility for various programs. CBMS uses a custom rules engine as part of a tightly coupled programming framework. Any change in rules requires significant changes to the framework and programming models before Departmental policy staff can implement changes to the rules. The complexity of the CBMS rules engine is illustrated in Figure 3.

High Level Program Group	Decision Tables	Set Operations
Adult Medical Assistance	347	437
Children’s Health Plan Plus	146	425
Family Medical Assistance	871	983
Long Term Care	443	425
Medicare Savings Program	148	236
Presumptive Eligible Medical	128	140

Figure 3. Complexity of Existing Rules Engine

The Department has acquired a COTS rules engine that can be programmed and maintained by business analysts versus programmers. Rules will be written in an Excel spreadsheet type of format, use effective dating, have a trace-back capability to identify the rules and will document the order that the rules were invoked to arrive at an outcome. The rules engine will support web services and interface with common workflow tools, identity management and content management solution components.



1.3.6.1.1 Benefits

Implementing a new rules engine will enable the Department to:

- Implement policy changes faster; CBMS Rules are tightly coupled with the current programming framework that provides rules elements and also executes them. Most of the necessary business logic is implemented in the current rules engine; a significant portion of the logic is still implemented in programming language. This also allows the business user to modify the rules instead of a programmer.
- Enhance CBMS' ability to make fast, consistent and accurate eligibility determinations and to support automated “no touch” adjudication for Family Medicaid and CHP+ by encapsulating eligibility rules and segregating rules by program.
- Analyze the impact of policy changes on enrollment, funding, etc., i.e. “what if” capabilities to be responsive to Executive and Legislative branch information requests and public inquire.
- Improve scalability by developing better hierarchical rules set which will execute rules in a more efficient manner and is easier to maintain.
- Enable interoperability with the Exchange; there are numerous scenarios where business logic implemented through the new rules engine will control execution of business processes involving moving data or transferring the user to or from the external systems (e.g. the Exchange).

In summary, the COTS rules engine will provide enormous benefits. It will result in more accurate and consistent eligibility determinations. It will reduce overall long-term systems costs and reduce system maintenance. It will increase the Department's responsiveness to legislative and policy changes. It will provide traceability and transparency of eligibility determinations that will improve both client and eligibility worker satisfaction. Finally, the rules engine will orchestrate some of the automated business process paths, alerts and other system-to-person and system-to-system interactions.

1.3.6.1.2 Implementation and Funding Considerations

Using HRSA SHAP funds, the Department, under the auspices of OIT, has acquired the Corticon rules engine. This rules engine was selected based on ease of configuring and cost. Funding to design and implement the COTS Rules Engine is requested through this IAPD.

The rules engine will reside and be maintained at the State, but will be assessable by the Exchange through an interface to provide screening for Medicaid and CHP+ eligibility. This will allow the Department to maintain one set of Medicaid and CHP+ eligibility rules and eliminate the need to have duplication of effort to maintain rules in both PEAK/CBMS and the Exchange.



The rules engine will be implemented using web services. In addition to supporting eligibility adjudication, the rules engine will help orchestrate workflow to support greater levels of automation and alerts. New rules services can be added without impacting existing rules services so the sophistication of the use of the rules engine should increase over time. Rules to support MAGI and minimal interoperability with the Exchange will be implemented to support the Exchange pilot in July 2013.

Funding for configuration of the rules engine related to MAGI eligibility will be cost allocated between the Department and the COHBE. This allocation will be determined during the design phase. Further enhancements to the rules engine will be fully allocated to the Department.

1.3.6.2 Client Correspondence

Client correspondence will be restructured to include only relevant information in a readable, easy-to-follow format. All notices will be evaluated to determine if a simple, tabular format can be used to convey messages in a standard format. The tabular format will allow the definition of standard and variable information that needs to be printed along with all notices. All notices will be evaluated to determine if the descriptive text can be reduced and standardized to convey messages correctly and eradicate all conflicting and duplicative messaging. In summary, notices will be simplified, include plain language and be compliant with regulations.

1.3.6.2.1 Benefits

Redesigning notices using a balanced combination of the actions described above will result in the following benefits:

- Avoid confusing the client with mixed or conflicting messages and inaccurate information.
- Notify the client only about the latest action affecting their benefits.
- Reduce the number of correspondences, duplicates, and documents sent to the client.
- Reduce the cost of correspondence via printing and mailing expenses.
- Reduce manual actions required by users, including phone calls to eligibility site staff.

Using Adobe's LiveCycle correspondence management system to implement client correspondence will help to achieve the following goals:

- E-notification
- ADA compliant correspondences
- Ease the process of management and generation of correspondence
- Simplify the entire client correspondence process and notices



1.3.6.2.2 Implementation and Funding Considerations

All correspondence currently triggered for online printing will be evaluated to determine if these can be generated automatically in batch, without user intervention. If needed, users will have the functionality to pull the correspondences from batch and print them online.

The eligibility system will eliminate duplicate notices and notifications about eligibility determinations for previous months. The system will be evaluated to determine the best and most feasible approach.

Clients will have the ability to choose paper or electronic correspondence or both. Electronic notices will be available to clients within their PEAK inbox and will be accessible when they log into their account. Text message and e-mail options will be available with a link for online appeals hearing requests and direct links for rule sites will be available. Client correspondence will be upgraded to support and sustain new technological advances. The Client correspondence will be fully cost allocated to the Department.

1.3.6.3 Account Management

Account Management will unify two disparate application access controls in PEAK and CBMS. PEAK uses a Lightweight Directory Access Protocol (LDAP) service for identity proofing for consumers' access. CBMS uses approximately 28 custom screens for account administration functions such as user set-up, sign-in and assigning workers access to cases, i.e. managing caseloads. This upgrade will modularize account management and utilize a single COTS product to perform account management functions in both PEAK and CBMS. This enhancement will enable a centralized account management capability and certain account administration functions to be delegated to eligibility sites. In addition, Account Management will enable single sign-on between PEAK and the Exchange to support interoperability and “no wrong door” requirements.

1.3.6.3.1 Benefits

Account Management will streamline administrative tasks such as new user set-up. Administrators will be able to more easily assign and re-assign cases to operational units and workers. Role-based security will enable the Department to more quickly configure the system to meet new operational models and business requirements. The upgrade will provide single sign-on with the Exchange such that consumers can log into PEAK or the Exchange and be routed to the proper screens to maximize self-service for eligibility, checking benefits, inquires, etc.

1.3.6.3.2 Implementation Considerations and Funding

Account Management will be implemented as a priority to support the Exchange. The state has already purchased the Oracle Identity Management product. Outcomes from business process



engineering activities will provide requirements for configuration. Interoperability design sessions will be held with Exchange staff to develop a unified design. Implementation and testing will be closely coordinate with COHBE. In subsequent phases, Account Management will be further enhanced to take advantage of integration opportunities with other PEAK/CBMS solution components such as auto case assignment and external system look-up functions.

Additional Oracle Identity Management product licenses will be required to accommodate the expected consumer population. Funding for Account Management will be cost allocated between the Department and the Exchange. This allocation will be determined during the design phase.

1.3.6.4 Workflow Management Tool

Workflow management allows automated sequencing of eligibility business process steps. A workflow management tool connected to CBMS and the rules engine will drive task creation, assignment, routing, and closure. Workflow will be driven by CBMS data, PEAK data and data provided by other parts of the system. The workflow management tool will permit multiple data sources to be used to characterize and drive internal process for the end user whether an assister or a consumer.

The workflow management tool can be configurable, or adaptable, to the unique constraints of each eligibility site. While high-level business concepts or outcomes could be germane to the entire CBMS environment (such as Applications, Re-certifications, Authorization, etc.) the tool needs to be flexible enough to fit a variety of work environments and resource levels. Figure 4 illustrates an example of how the application process referenced above could be facilitated by establishing process connections between CBMS components and the workflow management tool.

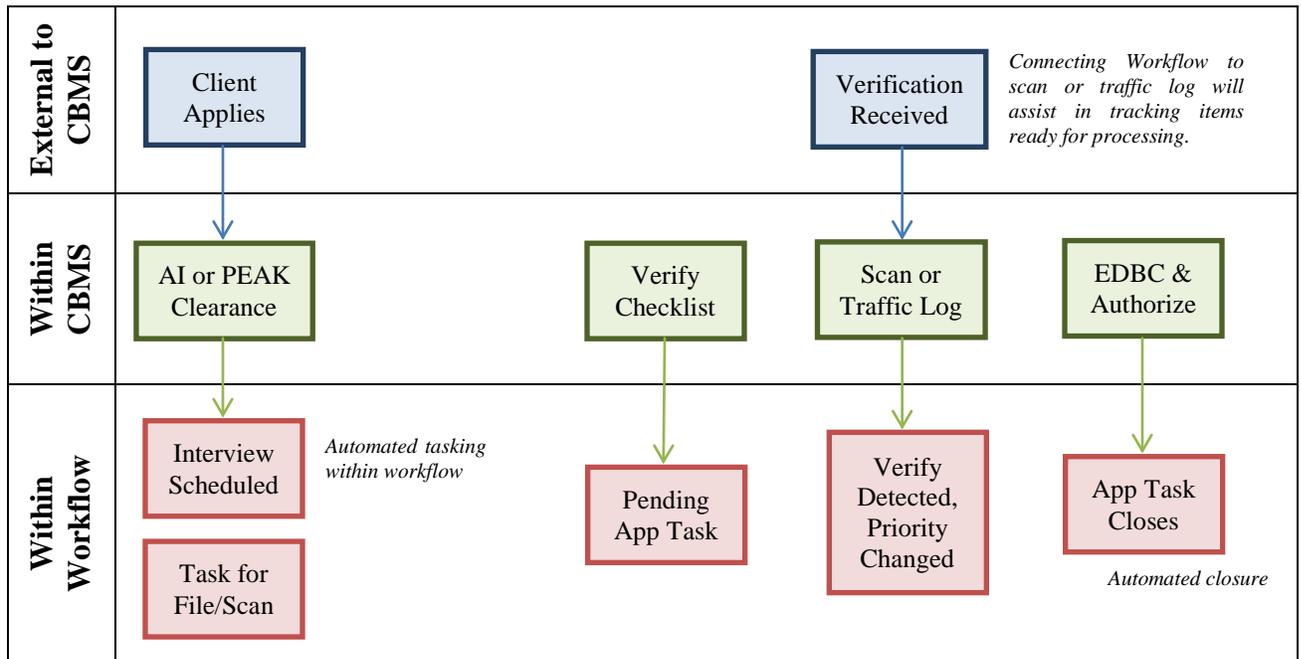


Figure 4. Illustration of Automated Workflow

1.3.6.4.1 Benefits

Implementing workflow management will benefit most core processes. For caseload and workforce management internal staff will have the ability to see and manage tasks for coverage, troubleshooting, or supervision. This assists staff in setting priorities for processing and business logic can elevate priority levels. Supervisors and managers can view the status of work in the queue, due dates, assign/re-assign work, etc. Further, automation will reduce manual tasks and streamline the process beginning with a new self-service on-line application.

1.3.6.4.2 Implementation and Funding Considerations

Workflow management will be implemented as a high priority upgrade but will be configured incrementally to support automation of specific business processes. Requirements for workflow configuration will be based on outcomes of business process re-engineering activities. The majority of costs for workflow implementation will be borne by the Department. However, some workflows as they relate to interoperability will be cost allocated between the Department and the Exchange. This allocation will be determined during the design phase.



1.3.6.5 Electronic Document Management System (EDMS)

A COTS document management system will be implemented and integrated into PEAK and CBMS. The imaging system will capture images scanned by clients and eligibility workers to substantiate their eligibility for medical assistance programs. Clients will be able to upload documents such as driver's licenses, birth certificates, pay stubs, tax returns, etc., into PEAK through mobile applications, fax or through their PEAK account online. These documents will be available to all eligibility workers or through PEAK for the client to view. The EDMS will be integrated with the workflow management system, new and existing systems as shown in Figure 5. The EDMS will provide a central electronic repository of eligibility documentation to enable document sharing and improve access to documents for eligibility workers and auditors.

1.3.6.5.1 Benefits

The EDMS will enhance core business processes, eligibility, case management and workforce/caseload management. Specifically:

- Documents can be archived and retrieved regardless of the point of origin.
- Electronic files can be centrally stored and shared.
- Eliminating hardcopy files which will improve processing efficiencies and save office space.
- Electronic documents can be routed based on workflow.
- Clients can upload and view documents associated with their case, which will reduce mailings and trips to an eligibility site office.

1.3.6.5.2 Implementation and Funding Considerations

Implementation of the base EDMS is a high priority. In a latter phase, additional capabilities will be implemented such as bar coding and optical character recognition (OCR), which will be used to identify various document types and individual clients/cases automatically. Figure 5 provides a conceptual view of the EDMS.

Funding for portions of the EDMS related to Medicaid and CHP+ documents received by the Exchange will be cost allocated between the Department and the Exchange. This allocation will be determined during the design phase. Other aspects of the EDMS not needed to support interoperability will be allocated to the Department.

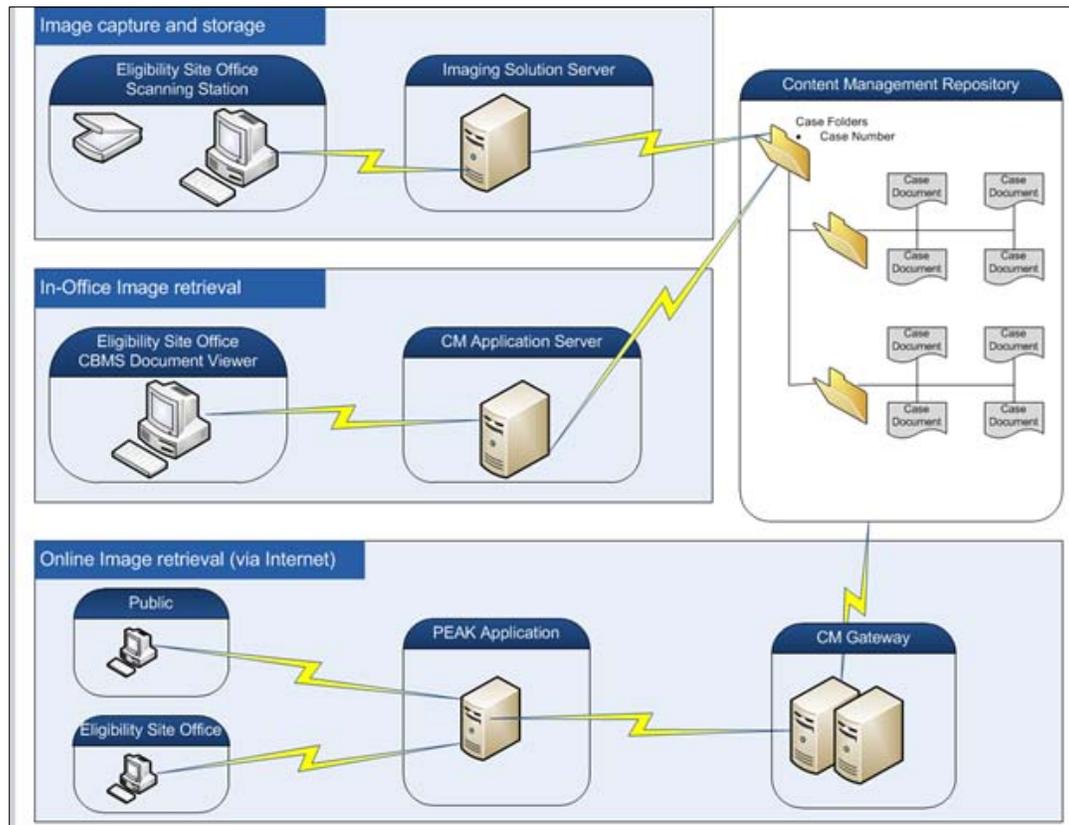


Figure 5. Conceptual View of EDMS

1.3.6.6 Decision Support System:

A new decision support system (DSS) will be implemented. The Department and its partners will work together to facilitate building a new DSS for eligibility systems, which will rectify the problems and shortcomings inherent in the current DSS. Data needs to be accessible at the real-time (or near real time) transaction level, to allow for same day reporting on case actions, processing activities etc. The data also needs to be modeled for historical reporting on topics ranging from: policy impact analysis, caseload levels, application volume, denial reasons, case/client demographics, processing timeliness, etc.

1.3.6.6.1 Benefits

Overall, the benefits of a new DSS will include:

- Access to comprehensive eligibility business process and policy data sets in real-time or near real-time.



- Defined datamarts based on common data themes, e.g. eligibility, case management, workforce management, with useful dimensions.
- Better reports and queries for caseload levels, application volumes, case/client demographics, processing timelines, etc.
- Same-day data availability, for case actions, processing activities, etc.
- Data accessible to all levels of users based on security.

These benefits will enable eligibility site workers to understand pending work items, workload/backlog and upcoming deadlines, which should translate into higher worker productivity. The DSS can support service improvement strategies and outreach efforts. Finally, a DSS can enhance fraud prevention and strengthen internal controls.

1.3.6.6.2 Implementation and Funding Considerations

The proposed DSS landscape for CBMS will start with the development of a comprehensive data model for eligibility data. A substantive review of the existing set of data provided via the business intelligence tool Cognos as well as modeled/available data in the DSS will be reviewed and vetted against the business needs of processing sites and the Department. This will help frame the discussion of available data in the context of actual business needs, and will ensure that any unnecessary or duplicative reports currently in existence will not be perpetuated in the new DSS environment.

The DSS tool will integrate with the planned workflow component of CBMS. For most processing staff, the consumption of report information will be directly connected to their day-to-day processing expectations. To that end, reports need to be accessible to all levels of users and technical aptitudes. Reports which function as ‘to-do’ lists, will be eliminated by incorporating these action items into the workflow tool. The DSS will be fully cost allocated to the Department.

1.3.6.7 Interfaces – Modifications to Existing Ones and Creating New Ones

The purpose of modifying existing CBMS interfaces and creating new interfaces is to provide the eligibility process (systems and workers) real-time access to data and information needed to expedite eligibility determinations. Where business requirements warrant, interfaces will be real-time. Where only data and informational “look ups” are required, interfaces will provide the capability for the eligibility worker to locate and view the data elements in other systems (if feasible and permissible).

CBMS exchanges information with multiple Federal, State, and other internal and external systems using approximately 36 interfaces. These interfaces are necessary for the State to utilize its resources efficiently and provide the highest level of service to its many clients. Currently, the majority of these interfaces use batch processing, i.e. a flat file is usually sent through a



secure FTP transaction to and from CBMS. The file is then loaded into a table and processed using COBOL programs and, for some files, a file is generated and sent back to the interface partner.

It is expected that some of the current interfaces will be integrated into the federal data service hub; therefore, it will not be necessary for the Department to maintain separate interfaces. However, when the federal data service hub does not meet the business needs of the Department or it is determined that an alternate interface provides additional, appropriate data, the Department will implement additional interfaces to meet programmatic business needs including the requirements of PPACA.

Through its planning efforts, the Department has identified approximately 36 interfaces that support the eligibility process that will undergo some degree of modification. For each interface the Department will define specific enhancements required to support a streamlined medical eligibility process and to integrate with the proposed modular architecture. These interfaces will be built to required standards for protection of data in transit. Interface requirements will include data logging, error detection and rollback capabilities (where feasible).

1.3.6.7.1 Benefits

These automated interfaces will improve the eligibility process for the client and the worker leading to greater client satisfaction and worker efficiencies and effectiveness. The enhanced interfaces in CBMS will be used to compare or update consumer data to support medical eligibility and enrollment processes. When specific client data elements are updated by external systems or workflow, the rules engine will execute an automatic eligibility determination benefit calculation to determine current or ongoing eligibility for benefits. When eligibility workers need access to data in other systems they will have the capability to query those systems in real-time. Some interfaced data will be written to clients' case records in CBMS and will be available for display and can be used to update PEAK as well for client viewing. Interfaced data used for verification of eligibility information will be written to the eligibility system to allow eligibility workers to review and request corroborating verification, if necessary.

1.3.6.7.2 Implementation and Funding Considerations

This effort will emphasize a flexible design supported by state-of-the art technology that allows CBMS to build new, open interfaces and enhance existing interfaces to exchange data in real-time with interface partners. Existing interfaces have been identified for modification, and new interfaces have been identified for creation. As part of the upgrade, detailed requirements will be written to support development and deployment of these interfaces. To the maximum extent possible, and based on business needs, interfaces will be automatically triggered and will not require initiation or retrieval by the end-user. An "on demand" capability will be available to support manual retrieval of data from other systems and "look-up" capabilities will be on-demand function if appropriate.



These interfaces are in addition to, and complimentary of, the Plug and Play Exchange interfaces described in the following section. These interfaces will be fully cost allocated to the Department.

1.3.6.8 Plug and Play Capabilities with Exchange

Plug and Play capabilities with Exchange comprises a set of interfaces between the Department and the future Exchange which include integration with the State identity management and master data management (MDM) components to enable interoperability between State systems and the Exchange. These capabilities will provide the ability to meet the business requirements of “no wrong” door for clients to enroll in healthcare coverage whether the consumer is eligible for state or private (subsidized or unsubsidized) coverage regardless of which system serves as the entry point. In addition, this architecture will provide a relatively seamless client experience.

As part of requirements definition, five high level scenarios were identified that provide a framework for the design and integration of State systems and the Exchange. These scenarios reflect the Department’s and COHBE’s accepted interoperability use cases and a “no wrong door” capability between PEAK/CBMS and the Exchange, enabling two systems “owned” and operated by two different organizations to ensure a sound user experience.

These scenarios listed below address clients’ starting and ending points in the eligibility and enrollment process for clients eligible under MAGI eligibility rules.

- **Scenario #1** – Client begins eligibility process in PEAK; MAGI eligibility rules engine determines the client’s household eligible for Medicaid or CHP+ programs; Client completes appropriate enrollment activities for Medicaid or CHP+ in PEAK; Client’s household eligibility and enrollment information is maintained in CBMS, shared with the Exchange, and transferred to the MMIS.
- **Scenario #2** – Client begins eligibility process in PEAK; MAGI eligibility rules engine determines the client’s household NOT eligible for Medicaid or CHP+ programs; Client is transferred seamlessly to Exchange; Client completes appropriate enrollment activities to obtain private coverage through Exchange; Client’s household eligibility and enrollment information is maintained in Exchange and shared with the CBMS.
- **Scenario #3** – Client begins eligibility process in Exchange; MAGI eligibility rules engine determines the client’s household NOT eligible for Medicaid or CHP+ programs; Client completes appropriate enrollment activities to obtain private coverage through Exchange; Client’s household eligibility and enrollment information is maintained in Exchange and shared with the CBMS.



- **Scenario #4** – Client begins eligibility process in Exchange; MAGI eligibility rules engine determines the client’s household eligible for Medicaid or CHP+ programs; Client is transferred seamlessly to PEAK; Client completes appropriate enrollment activities for Medicaid or CHP+ in PEAK; Client’s household eligibility and enrollment information is maintained in CBMS, shared with the Exchange, and transferred to the MMIS.
- **Scenario #5** – Client begins eligibility process in Exchange; MAGI eligibility determines that one but not all household members are eligible for Medicaid or CHP+ programs; Client remains in the Exchange; Client enrolls some household members in private coverage; Client completes preliminary enrollment activities for Medicaid or CHP+ in Exchange; Client’s household eligibility and enrollment information is passed to CBMS/MMIS for enrollment.
- **Scenario #6** – Client begins eligibility process in PEAK; MAGI eligibility rules engine determine that one but not all household members are eligible for Medicaid or CHP+ programs; Client is transferred seamlessly to the Exchange; Client enrolls some household members in private coverage and Client completes preliminary enrollment activities for Medicaid or CHP+ in the Exchange; Client’s household eligibility and enrollment information is passed to CBMS/MMIS for enrollment.

Based on the business objectives and the scenario analysis, approximately nine interfaces between the Exchange and PEAK/CBMS and State systems have been conceptually designed and will be implemented during the PEAK/CBMS enhancement project and in the Exchange project. From these high-level interface designs more detailed system requirements will be designed, built, tested and deployed in collaboration with the Exchange.

1.3.6.8.1 Benefits

The proposed design will accommodate the scenarios listed above and provide clients a “no wrong door” access point and the ability to move between state systems and the Exchange as life circumstances and corresponding eligibility change. The interfaces will enhance the client experience and will also help eligibility staff to provide better customer service, by making information available in both systems, as needed, to track cases, appeals and the enrollment status of household members.

1.3.6.8.2 Implementation and Funding Considerations

Realization of the system interoperability capabilities described above will require a closely coordinated effort on behalf of the Department and COHBE. Collaborative design sessions will be required and close coordination of other implementation activities and project management will be necessary to keep these parallel efforts in sync. Plug and Play capabilities will be cost allocated between the Department and the Exchange.



1.3.7 Business Process Re-engineering Project

The Business Process Re-engineering project consists of three initiatives that will complement the technology projects described above by focusing on business processes and the interaction people, processes, and technology. This project includes a Business Process Re-engineering initiative, a comprehensive Training program and wide-ranging Outreach and Communications activities.

1.3.7.1 Business Process Re-engineering initiative

To maximize the effectiveness of upgrading the state’s eligibility system, a complimentary effort will be undertaken to re-engineer current business processes at eligibility sites. New business process models must be developed to ensure that the system design sufficiently supports the business processes and needs and the evolving changes to the eligibility and enrollment determination process to support the PPACA.

The Department will initiate systemic changes to the eligibility and enrollment processes and the role of eligibility sites. The Department intends to assist each site in the development of standardized, efficient and effective work processes that improve work quality by using process improvement methods that are common in the private health care sector. The focus will be on workflow management and integration of automated systems, and technologies that are under development, such as a dashboard, an EDMS, improvements in the worker interface and real time eligibility determinations. Additional efforts will concentrate on client call centers with focus on first-call resolution and on the workers’ new role around client service and providing resources and referrals. The business process improvement strategies will reduce non-value-added steps and waste, as well standardize multiple work functions based on each site’s unique work environment.

1.3.7.1.1 Benefits

Benefits from business process re-engineering will provide a means for incorporating staff input into solution design, which will result in optimization of people, processes and technology. Eligibility staff will solve problems and eliminate system “work-arounds” they have been utilizing .

Through business process improvement tools, strategies, and related data, eligibility sites will continue to be able to address workflow management and create workflow processes to improve quality and efficiency and effectively maintain volume. Implementing business process improvements derived from business process re-engineering will result in:

- Increased capacity which will reduce/preclude backlogs.
- Better match between staff skills and client needs.
- Identification of tasks that can be performed in parallel.



- Minimization of handoffs and elimination of “work-arounds” and bottlenecks.
- Greater percentage of first time resolution with clients.
- Opportunities to increase staff cross training.
- Standardized office operations to gain efficiencies
- Reductions in process complexity or isolation of complexity.

Based on previous work with business process improvement strategies the Department expects significant ROI from this project. It will create opportunities for effective policy implementation and service delivery. The result will be staff who are finally equipped with technology and tools that promote effective business processes, improving access to eligibility and enrollment.

1.3.7.1.2 Implementation Considerations and Funding

The Department plans to contract with a consulting firm specializing in business process re-design in this domain. An open and collaborative approach for developing business process improvements will allow participants to brainstorm ideas, take those ideas back to their sites to test, and then regroup to share findings. Through this process, sites will use other sites as testbeds and then adopt those processes that improve quality and efficiencies throughout the state.

Although no two eligibility sites are exactly the same, they have many similarities when categorized by size or region. Each group (small, medium, and large) will work together collectively to achieve specific goals and in consultation with other teams to achieve a common goal. Participants will achieve success by reviewing their current processes/results in relation to the future state; testing, sharing successes and failures with other teams; and spreading improvements. This collaborative approach will encourage sites to test and adapt changes based on their environment, as well as allow them to take an active role in upcoming changes to the eligibility and enrollment process.

Funding for business process re-engineering will be fully cost allocated to the Department, but will be fully leveraged across business processes to support non-medical programs.

1.3.7.2 Training

The objective of this effort is to implement a fully integrated training program (policy, system, operations) geared towards eligibility worker success by presenting timely, comprehensive, relevant and consistent materials and information on the application of policy within the system implementation.

Eligibility workers will be required to obtain certification documenting their proficiency in the application of policy within the eligibility system. The certification program will ensure consistency among all users in terms of case processing expectations and the standardization of



business processes. Eligibility sites will be notified of ongoing issues identified by Department staff and OIT Help Desk. Program and system staff will collaborate to create training to support the technology and holistic case management.

Online help technology will be upgraded to include more procedural guidelines and links to procedural documents such as job aids. Troubleshooting details on problematic pages or processes will be available, utilizing multimedia aspects, such as video clips or short Web Based Trainings. Updated software will be used to simplify the navigation of online help to make it a “one stop” for user reference material, eliminating the need to navigate to other sites. Processes for maintaining online help will be woven into operations to ensure users are able to access real time, accurate information. Online help will be context sensitive.

A blended learning approach, combined with county/regional training delivery, will be used to train eligibility workers. Technology will be leveraged to overcome limited staffing resources and to reach users in remote locations. This approach will combine highly interactive web-based-training modules, virtual classrooms, webinars, and self-paced post-training practice exercises, with traditional instructor-led training, delivered in county/regional settings to minimize travel time and expense. State of the art training software, such as Captivate 5.5, will also be used to provide “short subjects” via online videos to address frequently asked questions and/or common problem areas. A Learning Management System (LMS) will be deployed to assist in the scheduling of training, student evaluations and certifications, and the management of training materials.

1.3.7.2.1 Benefits

Access to CBMS is often delayed by weeks due to security and training requirements. The new training approach and system will significantly reduce these delays thereby increasing capacity, throughput and worker and client satisfaction. With this training program and on-demand training resources, many workers will avoid unnecessary periods of unproductive time navigating through complexities in the current system. Standardized expectations in business processes will be a key part of the training, assuring consistency in workflow. This enhancement will result in better case management by using complex scenarios that reflect actual situations as part of the training.

1.3.7.2.2 Implementation Considerations and Funding

The training program and training tools will be implemented in a phased approach that corresponds to roll-out of enhanced technological capabilities. The implementation strategy will address high-volume end-to-end business processes first then move to lower volume, less prevalent training scenarios.

Funding for training will be fully allocated to the Department. Training content and tools will be highly leveraged across non-medical programs. Non-medical program training content will be funded by DHS.



1.3.7.3 Enterprise Readiness - Outreach and Communications

With the deployment of what will be essentially a fully re-built and enhanced eligibility system for the public and workers, a comprehensive outreach and communications work stream will be formulated and rolled out prior to launch of each of the three project phases. Outreach and communications will take the form of e-mail blasts, webinars, live forums and publications to reach clients, eligibility sites, community-based organizations, advocates and the general public. The Department will seek to pool resources with OIT, DHS and DPHE as well as other organizations such as COHBE.

Within the new system, there will be a capability to automatically generate targeted campaigns based on defined roles using the new Account Management component (existing clients, previously deemed ineligible that will be eligible under expansion). This will enable the Department to alert user segments of new program requirements, system features, training opportunities, etc.

1.3.7.3.1 Benefits

Providing information on the progress of implementation and key dates for testing and deployment for each phase will provide transparency and enable various audiences to prepare for training, develop local communications and other changes anticipated from deployment of major new PEAK and CBMS capabilities.

1.3.7.3.2 Implementation Considerations and Funding

Enterprise readiness will be performed in conjunction with deployment of the first wave of enhancements. Pre-deployment outreach and communications are key elements of successful technology implementation, i.e. these activities are often referred to as enterprise readiness or change management and are often overlooked. Development of specific outreach and communications activities will be developed in concert with key constituencies and will leverage existing outreach and communication channels that have worked in the past. New channels will be developed as needed.

Funding for outreach and communications will be closely coupled with testing and deployment and will be fully allocated to the Department. Grants from Colorado-based organizations will be solicited to supplement federal funding obtained from this IAPD.

1.3.8 Contact Center Project

The Contact Center project will establish and support an adequately staffed, full-service and technologically enabled Help Desk for clients and assistors to ensure users of the enhanced eligibility system are adequately supported.



1.3.8.1 Help Desk for Assistors and Direct Client Assistance

A help desk will be implemented for Assistors. It will provide assistance via toll-free phone, chat, e-mail and online. It will be coordinated with the Exchange ensuring that application assistors can call one number to receive a timely answer to core questions regarding PEAK or the Exchange.

The help desk will also include a community-based organization (CBO) Portal. This will allow community organizations (such as hospitals, schools, church groups, etc.) providing application assistance to log into PEAK or the Exchange to initiate and actively track applications that they submit on behalf of clients in their community. This portal will give application assistors greater autonomy, allowing them to provide better case management to clients, and resulting in fewer calls to the Help Desk. The CBO portal will include reporting capacities that will allow CBOs to access and generate reports based upon their individual organizational needs.

At a minimum, the help desk will respond to technical and programmatic questions regarding all programs available through PEAK in real time. It will also seamlessly transfer clients to assistance available through the COHBE client support mechanisms, Healthy Communities, and assistors across the state that can help them understand their coverage options and to access care. In this manner, the help desk will embody "no wrong door" approach through which a client can call the toll-free help line and easily access the full spectrum of information they need to apply for benefits, understand their coverage and access appropriate care. By calling the PEAK toll free number, clients will be able to access information regarding the application process through PEAK. The PEAK help desk number will also contain an option to transfer the consumer directly to the COHBE help desk. There will be similar coordination between the COHBE help desk and the PEAK help desk.

1.3.8.1.1 Benefits

Benefits of the help desk for Assistors will include:

- Answering system and policy-related questions; all necessary information will be included in a knowledge base that is continually updated.
- Providing a feedback loop to training and site improvements.
- Enabling community partners to track help desk ticket submission, status and response. (The same functionality will be available within the client help desk.)
- Allowing the client to select their preferred manner of communication: e-mail, text, mobile devices or phones, or mail, as required by the *Seven Conditions and Standards*.

Benefits of the help desk for Direct Client will include:

- Trouble-shooting cases and resolve discrepancies including inaccuracies in information retrieved using interfaces. It will also be able to troubleshoot and resolve challenges related to uploading documents needed to complete an application.



- Answering all questions regarding the application process for PEAK. Clients will be able to receive application assistance by calling the help desk or chatting with them via online chat.
- Employing a call tree or similar functionality to efficiently direct clients to a staff member that can appropriately assist them. This will include direct connections to brokers, Healthy Communities/EPSTD staff, and assistors.
- The online component of the help desk will include a process through which clients can reset their own passwords automatically using secure e-mail approaches akin to what is used by banks and other organizations currently. This process will take no more than two minutes and will be able to be completed online. It will not require a client to contact the help desk by telephone.

The help desk will be tested by end-users prior to becoming available to the public to ensure high quality service. Performance metrics pertaining to client service, accuracy of answers, and response times will be used to ensure accountability and superb client service.

1.3.8.1.2 Implementation and Funding Considerations

The help desk will be implemented as part of the initial deployment. The help desk will be tested and evaluated with regard to accessibility, ease of use, reliability and timeliness of responses, as experienced by providers and application assistors. In order to ensure locally relevant responses and the ability to link to accurate and comprehensive local services, callers may be routed to a local call center within each county or to a regional call center. The help desk will be coordinated with the COHBE so that detailed questions regarding private coverage, eligibility for Advanced Premium Tax Credits and other Exchange-related inquiries can be handed off to the Exchange customer service center. Help desk start-up will be funded by the Department.

1.3.9 Infrastructure Project

The Infrastructure project includes projects that will provide the underlying technology base to support the eligibility application components, which in turn support the PEAK and CBMS enhancements. These infrastructure changes underpin all of the projects described above.

1.3.9.1 Application Infrastructure

Fundamental infrastructure improvements are planned for CBMS. CBMS will remain a three-tier application. However, several significant infrastructure changes will be made. CBMS will move from a PowerBuilder based, client-facing application requiring Citrix, to a Java-based application using Websphere at the application layer. Tuxedo may remain to support middleware services. Oracle database will continue support the data layer. However, the Oracle database will be upgraded to a supported version; this provides many technical and business



enhancements necessary to implement other changes in CBMS. The next generation high-level CBMS architecture is shown in Figure 6.

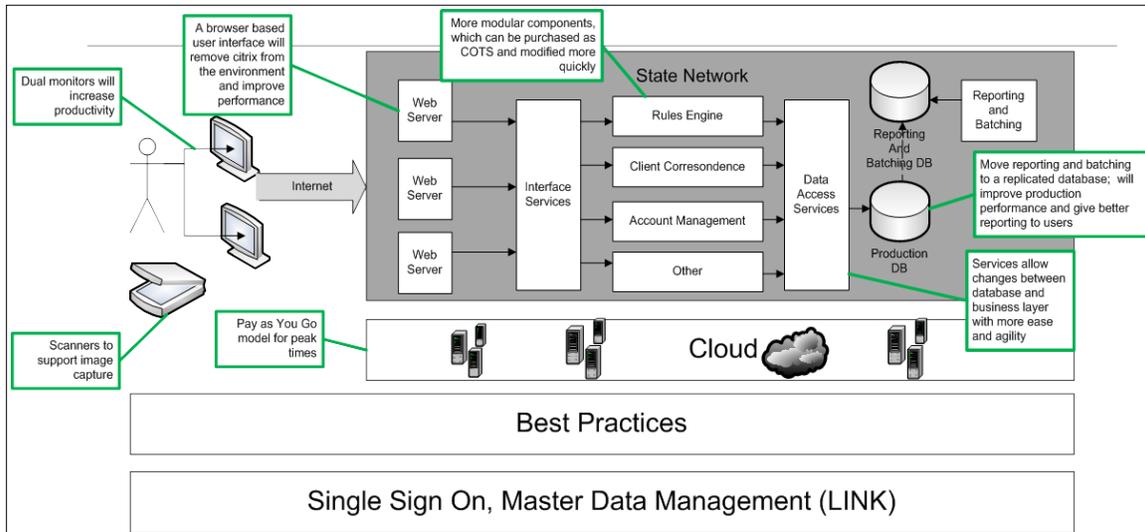


Figure 6. High-Level CBMS Architecture - Future

The following highlights the major enhancements to the PEAK/CBMS infrastructure.

- Oracle database will be upgraded to version 11g.
- All remaining, client-facing screens will be transitioned from PowerBuilder to JAVA.
- The reporting environment will be transitioned away from the production database server and provide a real-time copy of the production database to reduce resource contention and adverse performance impacts to the production system.
- Automated archiving of client data will be implemented as a corollary to the Oracle database upgrade which will remove the data from the production data base but will not remove it from the CBMS environment; moving this data to a different tier of storage will reduce ongoing storage costs as well as reduce the size of the production database which will improve performance.

From an operations and hosting perspective, although there are no issues with the current hosting architecture beyond sizing, CBMS will begin migrating to an open architecture to align with the state’s strategic direction to move to the cloud. Although there are cloud providers that support the existing hosting platforms, proprietary platforms increase external hosting costs and limit the pool of available cloud providers. A key benefit of moving to the cloud is that vendors will be able to provide a pricing model based on actual usage. This will limit up-front costs and allow the Department to pay only for infrastructure that is needed, when it is needed. Initial migrations from Proprietary HP-UX hosting environment to X-86 servers will begin with the Websphere Application server environment responsible for hosting JAVA pages as well as Rules Engine Services and Client Correspondence services.



1.3.9.1.1 Benefits

Following the upgrade of the CBMS database environment, CBMS will be able to take advantage of several new features of the database. These features will allow CBMS to separate out the database functions that are currently performed in the production environment to a real-time copy of the production database while not impacting performance of the production database. With this, activities like batch processing can be performed during business hours and not impact the end-user in terms of system performance. Additionally, this same approach process will support an expansion of the current reporting database, providing users with a production-like copy of data to meet reporting requirements.

Through a migration of Websphere services to X-86 servers, CBMS will free up needed resources in the HP-UX environment for use by other components of CBMS or to support better local failover capabilities or disaster recovery infrastructure requirements.

Through these infrastructure enhancements load stress testing will be practical which will reduce risk without major changes to application services/functionality or infrastructure changes. The Department and OIT will be able to simulate user-like transactions at user-like loads to understand the impact of changes before they are made in production.

Finally, CBMS will migrate backup service to the state's Virtual Tape environment, both from a hardware perspective as well as a software perspective. This will allow the state to reduce backup times by 50% or more while also providing automated support for offsite backups, faster restore times, and higher reliability. Time freed up through quicker backup processing will be used to expand off-hour processing capabilities, thereby increasing production availability.

1.3.9.1.2 Implementation and Funding Considerations

Implementation of infrastructure changes will be required to support the initial high priority projects and will provide a foundation upon which to implement additional enhancements related to subsequent projects. Numerous technical and business process dependencies must be accommodated.

Costs for state infrastructure upgrades will be fully cost allocated to the Department as these enhancements are modifications that support core CBMS business functions.

1.3.9.2 Local IT/County Side Infrastructure

The Local IT/County Side Infrastructure will deploy the infrastructure required to support the Medicaid expansion population and consumers who enter through PEAK or visit eligibility sites additional populations but are determined ineligible for state programs and are transferred to the Exchange. It makes little sense to implement all of the system capabilities described above without the supporting technical infrastructure. This infrastructure includes additional bandwidth to support the self-service capabilities, new access points such as kiosks, dual



monitors for eligibility workers, scanners for county offices, OCR or screen scraping capabilities and an Interactive Voice Response (IVR) system. Counties may need to augment this infrastructure if they choose to implement services differently than sized and planned by the state.

Requirements for hardware will be defined (into specifications) as part of the planning/design process following approval of this IAPD. OIT will utilize its master contract with various hardware vendors to secure the most beneficial pricing. Some of these may include, but are not limited to:

- Additional bandwidth for county offices.
- Kiosks (hardened PCs or tablets) available to clients at eligibility sites.
- Dual monitors.
- Scanners.
- OCR or screen scraping capabilities.
- IVR to receive and route support calls or other inquiries.

1.3.9.2.1 Benefits

Implementation of this collective infrastructure will enable the county offices and other eligibility sites to gain workforce efficiencies and streamline their eligibility processes. Kiosks will promote self-service and can be located at various intake points; kiosks will provide clients an opportunity to begin entering application information even while waiting to see an eligibility worker. Together with the new EDMS capability described above, scanning hardware in the counties will be valuable in supporting document capture, sharing, and linking documents to client cases. Eligibility workers will be provided dual monitors to aid in the processing of applications; dual monitors will enable client-based documents (converted to images) to be displayed electronically, which will increase processing efficiencies. The IVR will enable client inquires to be routed to targeted support resources which will significantly decrease wait times; the IVR can be programmed to intelligently request specific information required of the client, i.e. pro-active automated requests and customer support, and can be linked to an e-mail notification. Together, this infrastructure upgrade targeting the counties and other select sites will expedite the eligibility process by enabling county workers to take full advantage of the major modifications in CBMS. It will greatly improve worker productivity and increase client satisfaction.

1.3.9.2.2 Implementation and Funding Considerations

Implementation of Local IT/County Side Infrastructure will be phased over time. Infrastructure upgrades that are relatively easy to implement and will immediately improve productivity and customer service such as increased bandwidth, dual monitors, scanners, IVR and kiosks will be



included in the initial wave of projects. Other infrastructure enhancements such as OCR are lower priority and will likely be implemented later.

Funding for local/County side infrastructure will be fully allocated to the Department.

1.3.9.3 Implementation Infrastructure

Major upgrades of the PEAK and CBMS in production applications will require a series of additional development, testing, and quality assurance environments. During system modifications, it will be necessary to maintain PEAK and CBMS environments to support on-going minor enhancements and break fixes. In parallel, OIT must stand-up and maintain a new set of development/testing/QA environments to manage the major upgrades isolated from the production and production support environments. In addition, interface environments must be instantiated to support interface development and integration testing with the Exchange. Virtual environments will be used wherever practical to reduce hardware and software expenses and support personnel.

1.3.9.3.1 Benefits

These additional environments will enable OIT to continue to maintain and to make minor modifications to PEAK and CBMS while development efforts and re-platforming proceeds to support the major system enhancement. This will provide OIT with simpler configuration management and reduce dependencies between the existing production system and the new development and testing environments to support initial projects and associated development activities. These environments will help to avoid resource contention and schedule delays.

1.3.9.3.2 Implementation and Funding Considerations

The new environments will be stood up immediately to support initial development and testing activities including interface testing. Virtualization will be used where appropriate to minimize costs. Funding for these environments will be cost allocated between the Department and the Exchange. This allocation will be determined during the design phase.

1.3.10 Summary

As described in the previous section the Department has identified several inter-dependent projects that are in preliminary planning stages, which will make the eligibility systems modular and interoperable. In aggregate, these projects will result in a best in class eligibility system, which will enhance users experience and prepare the state for integration with the Exchange. These projects address processes, technology and people/organizations. The table below provides a summary of the benefits of implementing some of these projects.



Project	Summary	Benefits
Convert Rules to New engine (Medicaid)	Convert all the Medicaid rules to new COTS rules engine	<ul style="list-style-type: none"> • Externalize the Medical Rules and make it modular • Increase interoperability with other external systems • Improve the performance of the application • Streamline the change control process (Regulations and policy changes)
PEAK: Real Time Online Eligibility Determination	Enhancing the Program Eligibility Application Kit, fixing areas of concern from program area and stakeholders, automate the Medicaid eligibility determination in PEAK	<ul style="list-style-type: none"> • Enhance user experience • Reduce the case worker application workload • Reduce wait time for individuals • Re-usability increases by keeping the rules in one system instead of two (CBMS and PEAK)
PEAK: Online Renewals	Enhancing the Program Eligibility Application Kit to include functionality for the online renewals	<ul style="list-style-type: none"> • Reduce the case worker application workload • Reduce wait time for individuals • Automate Renewal Process
PEAK: Online Enrollment Fee Payment	Enhancing the Program Eligibility Application Kit to include functionality for the online enrollment fee payments for the applicable medical programs	<ul style="list-style-type: none"> • Reduce wait time for individuals • Automate Enrollment and renewal Process
On-going Modularity and Refactoring	Identify areas of the system most likely to change, as well as the ones that can be interoperable with other systems, such as the Exchange and isolate those areas into modular units that will allow for a ‘plug and play’ environment. Eventually, this will replace the entire system without the pain of rip and replace. Upgrade the architecture to Service oriented architecture to enable the interoperability.	<ul style="list-style-type: none"> • Make CBMS interoperable • Enable streamlined integration options with Health Insurance Exchanges. • Enables plug and play of the new components



Project	Summary	Benefits
Electronic Document Management and Workflow Management (incl. infrastructure)	This project will allow us to scan the paper documents and store them electronically and use in the Workflow Management.	<ul style="list-style-type: none"> • Allow central access to the paper documents • Improve user experience • Reduce worker workload as these documents are available in electronic form; workers don't have paper case files • Eliminate the compatibility issues with various software purchased by counties
Web Services	There is a need to build web services interfaces around the data being shared across various platforms. This gives CBMS more interoperability options, as well as isolates data changes from the actual interfaces used by others. (In CBMS currently there are 5 real-time and around 30 Batch interfaces).	<ul style="list-style-type: none"> • Streamline the integration with other external system using the industry standard technology • Reduce overhead of changing the integration code • Increase CBMS interoperability
CHP+ Ex Parte	Automating CHP+ Ex-Parte	<ul style="list-style-type: none"> • Reduce the worker workload • Reduce wait time individuals • Reduce client correspondence
Auto Enroll Newborns	Allow newborns to be automatically enrolled in medical programs through the hospitals at the baby's birth.	<ul style="list-style-type: none"> • Remove manual processes • Enhance user experience • The new born is included in the case and starts receiving benefits quickly
Vital Stats	Automating citizenship verification for individuals born in Colorado	<ul style="list-style-type: none"> • Reduce the worker workload • Reduce wait time individuals
Automating Benefits Continuance at Appeal	Allows clients to continue to receive medical benefits during appeal	<ul style="list-style-type: none"> • Compliance with the federal regulations • Clients receive benefits while waiting for appeal decision
MAGI Rules	Build the MAGI Rules in CBMS	<ul style="list-style-type: none"> • Make CBMS interoperable with the Exchange • Comply with the “No wrong door” vision of the State



1.4 Collaboration with COHBE and Interoperability with the Exchange

Collaboration is critical to the success of both the Department and COHBE. The Department’s Executive Director serves as an ex-officio member of the COHBE Board. The Department and COHBE have also been engaged in regular planning meetings for the past year. The Department, OIT, DHS and COHBE analyzed interoperability options and collectively determined the architecture and features for interoperability between state and COHBE systems to promote a unified eligibility process and continuity of care.

In addition to interoperability of systems, the Department and COHBE are defining responsibilities for business processes and various support and appeals scenarios. The Department and COHBE are drafting a Memorandum of Understanding (MOU) to define roles and responsibilities for eligibility processes and enrollment for “mixed” families and governance of business rules.



2 Alternatives Analysis

The Department and OIT performed an analysis of alternatives to enhancing PEAK and modernizing CBMS. These alternatives included: 1) “no action”, i.e. maintaining these systems in their current state; 2) procuring and implementing a new eligibility (transfer) system; or 3) enhancing PEAK and modernizing CBMS. Through the regular planning meetings, the Department and its partners conducted a thorough risk-analysis and assessment of the available options. This assessment and decision also included review of analyses already conducted by the Department and OIT. Over the course of several months, weekly meetings were held with COHBE to further vet the alternatives and criteria and to consider the impact on the Exchange. It was determined that in order to meet the timelines required by PPACA, the State would need to improve and modernize CBMS as described in this IAPD. An outline is provided:

Approach	Argument Against Approach	Cost	Benefit
1. No Action. Do not comply with the PPACA or eligibility regulations.	Department fails to comply with PPACA. CBMS is not improved or modernized. Coloradans fail to receive Medicaid and CHP+ benefits timely.	\$0	No cost to federal government.
2. Procuring and implementing a new eligibility (transfer) system	To issue a procurement, select a vendor and perform DDI would not be accomplished by October 2013 and would not support the Exchange and PPACA requirements.	Cost is expected to be equal or greater than Approach #3.	Department complies with PPACA. Coloradans to receive Medicaid and CHP+ benefits timely.
3. Improve and modernize CBMS/PEAK as described in this IAPD	High cost, but likely less expensive than implementing a transfer system.	\$XX	Department complies with PPACA. CBMS is improved and modernized. Coloradans to receive Medicaid and CHP+ benefits timely.



3 Project Management Plan

Following approval of the IAPD and availability of funding the Department, in cooperation with OIT, will develop a detailed Project Management Plan and Concept of Operations to guide the implementation of PEAK and CBMS enhancements and integration with the Exchange.

3.1 Organization

Through this funding, contractor resources will be made available to the Department, OIT and the Counties. The state will provide functional, technical and project management oversight of all contractor activities. New state positions will be a combination of reallocation of current staff, new permanent staff and temporary staff. These additional positions are necessary in order to maintain current program operations while simultaneously providing appropriate oversight of contractor activities and stewardship of state and federal funding. Project organization will include Departmental personnel who will be responsible for functional leadership. Technical oversight and project management will be the responsibility of OIT. The time-phased hiring of these staff and delineation of re-assigned (current) staff and new hires is presented in the attached IAPD budget (Attachment A).

3.2 Project Schedule

A high-level project schedule is provided in Attachment B.

3.3 Procurements and Solicitations

The state will rely on Deloitte Consulting (Deloitte) to perform many of the technology enhancements for PEAK and CBMS. Deloitte is under a master services contract with the state (managed by OIT) to maintain and enhance PEAK and CBMS. Deloitte has been actively working on PEAK and CBMS for the past two years. Deloitte's base contract expires at the end of State Fiscal Year 2013, but will be renewed for at least two years. It will be a significant risk to deployment of enhancements to PEAK, CBMS and interoperability with the Exchange if there is any disruption in Deloitte's contract work.

Other smaller procurements will likely be pursued for services such as business process re-engineering services, help desk support, training, communications and outreach, IV&V/QA and program management. These procurements will follow all Departmental and state policies and regulations.



4 Proposed Project Budget and Cost Allocation

4.1 Estimated Total Budget

This IAPD is requesting the enhanced funding in the amount of \$XX with the Federal Financial Participation (FFP) being \$XX. The IAPD budget is provided in Attachment A.

4.2 Cost Allocation Plan

This funding request identifies projects that will be cost allocated between the Department and COHBE to support interoperability between state systems and the Exchange. Cost allocation for implementation of specific components and work to support interoperability between state systems and the Exchange will be identified during the design phase. Accordingly, an updated IAPD will be submitted.

The initial cost allocation between the Department and COBHE will be based on the estimated percentage of the population entering the Exchange who are eligible for state programs (1/3) and private coverage (2/3). Following first year of operations of the state's enhanced eligibility systems and the Exchange, a revised cost allocation plan will be submitted based on actual enrollment statistics from the first year of operations.

5 Assurances

This IAPD is written in accordance with the State Medicaid Manual, Part 11; and with the following Code of Federal Regulations (CFR) reference:

45 CFR Part 95.617: The State will have all ownership rights in software or modification thereof and associated documentation designed, developed, or installed with Federal financial participation under this subpart. The Department reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use and to authorize others to use for Federal Government purposes, such software, modifications, and documentation. Proprietary operating/vendor software packages which are provided at established catalog or market prices and sold or leased to the general public shall not be subject to the ownership provisions in paragraphs (a) and (b) of this section. FFP is not available for proprietary applications software developed specifically for the public assistance programs covered under this subpart.



5.1 State Compliance with CFR

Please indicate by checking “yes” or “no” whether or not the State will comply with the Code of Federal Regulations (CFR) and the State Medicaid Manual (SMM) citations.

Please provide an explanation for any “No” responses.

Procurement Standards (Competition / Sole Source)

Citation	Yes	No
42 CFR Part 495.348	X	
SMM Section 11267	X	
45 CFR Part 95.615	X	
45 CFR Part 92.36	X	

Access to Records, Reporting and Agency Attestations

Citation	Yes	No
42 CFR Part 495.350	X	
42 CFR Part 495.352	X	
42 CFR Part 495.346	X	
42 CFR Part 433.112(b)(5) – (9)	X	
45 CFR Part 95.615	X	
SMM Section 11267	X	

Software & Ownership Rights, Federal Licenses, Information Safeguarding, HIPAA Compliance, and Progress Reports

Citation	Yes	No
42 CFR Part 495.360	X	
45 CFR Part 95.617	X	
42 CFR Part 431.300	X	
42 CFR Part 433.112	X	

Security and interface requirements to be employed for all State HIT systems.

Citation	Yes	No
45 CFR 164 Securities and Privacy	X	



5.2 Seven Standards and Conditions in 42 CFR Part 433

The Department assures that the enhancements to be developed and implemented will be compliant with the seven standards and conditions set forth by CMS.

Standard/Condition	Compliance Discussion
Modularity Standard	The analysis and eventual implementation of the COBHE will address the need to connect and interoperate with a variety of health insurance options, including the exchange MAGI eligibility screening and CBMS. In particular, the design will focus on a new decision rules engine which can be interconnected with the COBHE as well as CBMS, but exists as a separate module.
Leverage Condition	This project allows the Department to leverage work done by the Federal UX 2014 Project and will consider solutions provided in a Software as a Service model or COTS software, as provided by vendors or other States' solutions. The Department is aware that licensing costs for a COTS solution will be matched at 75% FFP.
Business Results Condition	The COBHE will provide another access point for Colorado's citizens to access health care benefits. By pursuing an improved eligibility rules engine and addressing integration of the COBHE with CBMS and the MMIS, the Department will be able to improve timeliness and consistent claims processing for eligibility and subsequently enrolled clients.
Reporting Condition	The high-level requirements will determine the specific reporting and data required to evaluate COBHE performance as it relates to interoperability with the Medicaid programs and systems for continuous improvement.
Interoperability Condition	This project will evaluate solutions, which will provide interoperability between the COBHE, CBMS (including other human service programs), and the MMIS.
MITA Condition	The system changes will favor solutions which will allow the Department to improve its client eligibility and enrollment processes and to continue to move toward electronic and automated processes.



Standard/Condition	Compliance Discussion
Industry Standards Condition	<p>The Department is a Covered Entity under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. 1320d-1320d-8) and its implementing regulations (HIPAA). The Department will comply fully with all industry standards adopted by the Secretary of HHS. Additionally, the COBHE will evaluate applicable federal and state regulations on information technology system architectures that relate to the MMIS and health technology, including but not limited to, all of the following:</p> <ul style="list-style-type: none">▪ Office of Information Technology (OIT) guidelines for the State’s information technology systems, information technology architectures and data sharing.▪ Federal regulations and guidance on health insurance exchange technology.▪ Federal regulations and guidance on electronic health records and health information exchange, and associated provider incentive payments related to meaningful use.▪ Federal regulations and guidance on the Department’s ability to receive enhanced federal matching funds for the MMIS, eligibility determination systems, and other information technologies.▪ Federal regulations and guidance related to provider enrollment in Medicaid.▪ Federal regulations and guidance related to the implementation of the Patient Protection and Affordable Care Act (P.L. 111-148).