Oregon's Health Insurance Exchange Information Technology Solution:
Integrated Services, Seamless Coverage
Project Narrative
Dec. 22, 2010

INTRODUCTION

Oregon is well on the way to building a sustainable, consumer-oriented Health Insurance Exchange that will provide value to individual and small business consumers, be responsive to the state and federal governments, and markedly improve eligibility determination and health plan enrollment.

Commitment to Exchange Development
Oregon is committed to building an Exchange that improves Oregonians' ability to determine eligibility for financial assistance, helps them shop for coverage and easily enroll in health insurance coverage. Oregon has been investigating the development of a state exchange since 2007, when the Oregon Health Policy Commission put out its report, *Roadmap to Health Care Reform.* Over the intervening years, the state Legislature has directed work on an exchange, and in its 2009 session tasked the Oregon Health Authority (OHA) with developing a plan for an exchange. That work now continues with the guidance and assistance of the Office for Consumer Information and Insurance Oversight. As a state that has long been at the forefront of efforts to reform health insurance and health care delivery, Oregon is excited to be one of the first states to tackle the development and implementation of an information technology solution for one of the Affordable Care Act's (ACA) major health reform initiatives.

What the Exchange Will Do
Oregon's Exchange will provide seamless access to information, financial assistance and easy health insurance enrollment for Oregonians, with no gaps in coverage or assistance cliffs for anyone up to 400% of the federal poverty level (FPL). For small businesses, those earning over 400% of FPL and health insurance carriers, the Exchange will provide a marketplace for a variety of insurance options. For health plans, the Exchange will offer exposure to a large group of new consumers who will enter the Exchange to receive tax credits. Initially, an estimated 150,000 previously uninsured Oregonians will enter the Exchange. The Exchange can also reduce carrier costs by streamlining enrollment.

Oregon's Health Insurance Exchange will be a central marketplace for health insurance in the state, providing one-stop shopping for individuals and small businesses to compare rates, benefits and quality among plans, offering meaningful choice of health plans and providers, apples-to-apples comparisons, and easy payment processing. It will administer the new federal health insurance tax credits, offer improved, seamless access to Medicaid, and make it easier to enroll in commercial health insurance plans. In addition, the Exchange must provide excellent customer service and offer clear value for the premium dollar. The essential underpinning of a successful Exchange is a robust and agile information technology infrastructure that supports the business needs and policy goals of the federal-state partnership as embodied in the ACA.

Project Goal
The goal of Oregon's project, to be funded under an OCIIO Cooperative Agreement to Support Innovative Exchange Information Technology Systems, is to build a modular, reusable IT solution that

can be shared with other states as they assess the technology requirements for a Health Insurance Exchange that is fully integrated with their Medicaid programs' eligibility engine. Oregon's solution has an ambitious goal: to build a system in which the Health Insurance Exchange's eligibility system is seamless with Medicaid. Oregon's goal is to build business process rules that reflect our policy frame: we are determining eligibility for one continuous "subsidy" that ranges from 100% under Medicaid to 0% as individuals and families approach 400% of the federal poverty level. This will be a complex and challenging undertaking, but one that we believe will be most useful for states as we simplify and streamline access to health care coverage. The Exchange must be able to quickly and accurately enroll people in health insurance coverage—both Medicaid and commercial coverage—in order to succeed. The information technology infrastructure will determine how well the Exchange performs at this core business function.

Specific Exchange functions and supporting technology
As required by the ACA, the Exchange will provide information to consumers on health plans, eligibility, and enrollment. Access will include a toll-free hotline, Exchange web site, an electronic calculator, and in-person assistance by state eligibility workers and navigators. The Exchange will also screen and certify health plans as qualified to participate in the Exchange, grade plans on price and quality, and decertify plans that fail to meet Exchange and federal requirements. The Exchange will ensure fair competition of carriers in and out of the Exchange, enter into contracts to carry out functions and provide services and conduct open enrollment periods. It will facilitate community-based assistance (the navigator program), certify exemptions from the individual responsibility requirement, consult with stakeholders and publish information on the Exchange's costs and activities.

For the technology to support the Exchange, Oregon is developing a solution rooted in the State's enterprise technology plan, which outlines a series of enterprise capabilities that streamline and modernize various business functions, including eligibility and enrollment programs. This roadmap to modernization, based on a configurable technology framework and shared information technology architecture, is the starting point for the Exchange and will enable improvements in the health care delivery system to meet the goals and requirements of the ACA. At the end of the two-year grant period, Oregon will have designed and implemented a technology solution that can be used by Oregon and other states to ensure that efficient, user-friendly eligibility determinations, plan "shopping," and enrollment are available to residents without regard to income. Oregon's approach is to commit to working in consultation with multiple states to ensure a program and technology solution set that can be reused, yet tailored to other states' needs without heavy customization or changes to the base solution. This includes establishing a multi-state stakeholder advisory group that keeps our state partners informed and includes them in Oregon's development process, allowing them to more easily assess how to use the Oregon solution in their own states.

Detailed Project Work Plan
For this project, we propose a detailed plan (outlined in the attached Project Work Plan introduction and spreadsheet) that consists of five coordinated and concurrent work streams to establish the major functional domains of an integrated Health Insurance Exchange. This work includes the development of business rules to manage workflow and business processes; establishment of an internal portal to allow the Oregon Health Authority (OHA) and Oregon Department of Human Services (DHS) to manage the Exchange; creation of an external portal that would be the face of the Exchange to consumers, businesses and health plans; integration with existing program management systems such

as the Medicaid Management Information System (MMIS); and implementation of transactional, decision support and compliance reporting. It will also address other components of Exchange work, such as premium billing, carrier payment processing and information sharing with other agencies. Attached also is a detailed budget and staffing plan to carry out this work. See the detailed Project Work Plan description on page 19.

Oregon's history of health care and technical innovation
Because of its efforts to date, Oregon is uniquely positioned to lead innovation in the design of a seamless, consumer-friendly technology solution to support the establishment of health insurance exchanges across the country. We have investigated multiple technology solutions for streamlining and modernizing our information technology environment to improve medical eligibility determinations and have already determined that a configurable framework built using a service-oriented architectural approach positions us best to enable the goals and objectives set forth in the ACA and the programs administered by DHS and OHA.

Beyond enterprise technology planning, Oregon has been recognized as an innovator in health care delivery and policy since its development of the Oregon Health Plan in the 1980s, a thoughtful solution to prioritizing health care services within the Medicaid program. This work continued with state-level health care system reform approved by the Oregon Legislature in 2007; one of the seven building blocks of that law was to unify state purchasing power in part through the establishment of an insurance exchange. In 2009, Oregon's Legislature approved the promotion of further reforms to contain costs and improve the quality of health care within the state, including the development of a business plan for a Health Insurance Exchange.

Social services technical modernization
Meanwhile, Oregon's DHS and newly created Oregon Health Authority have been working together to use information technology to substantially improve eligibility and enrollment for Medicaid and social services programs. This modernization strategy sets the stage for Oregon to create an innovative and comprehensive technology solution that will allow consumers to use a single web-based interface to determine their eligibility for tax credits within the Exchange or for Medicaid, and learn about their coverage options and enroll in health coverage.

As many states are in the same position as Oregon – with multiple demands on an eligibility and enrollment system from state agencies involved in Medicaid, insurance regulation, health information technology planning and self-sufficiency programs – Oregon believes that its solution will be a useful model for many other states seeking to establish their exchanges as a mechanism for improving eligibility and enrollment for Medicaid and commercial insurance consumers and at the same time evaluating Medicaid eligibles for enrollment in other self-sufficiency programs..

COMMITMENT

Oregon's commitment to establishing an insurance exchange
As indicated by Governor Theodore Kulongoski in his letter of support (see letters of support), Oregon is committed to establishing a Health Insurance Exchange. Over the past several years, Oregon has shown its commitment to building an Exchange through legislation and the work of a number of advisory panels and state agencies. Statewide policy leaders (the Oregon Health Policy Commission,

Oregon Health Fund Board, and Oregon Health Policy Board, among others) have expressed support for an Exchange. In 2009 the state legislature passed House Bill 2009, requiring the OHA to develop a plan for an Exchange. This report will be submitted to the Legislature by end of 2010.

Legislative background
Oregon's Legislature meets biennially, meeting for its regular session in odd-numbered years. The 2011 session that begins in January is the full Legislature's first opportunity to address changes required by or otherwise included in the Affordable Care Act. A legislative concept drafted this fall will be introduced as a bill in the 2011 Legislative session to authorize the Exchange, establishing the Exchange as a public corporation with a Board appointed by the Governor, confirmed by the Senate and advised by consumer advisory groups. The legislation authorizes the public corporation to conduct the activities required by the ACA, enter into contracts, work with existing state agencies, and accept federal and other funds.

RESOURCES AND CAPABILITIES

State infrastructure and authority for an Exchange
Oregon is uniquely poised to succeed as an early innovator of exchange information technology systems. Oregon's resources and capabilities as an early innovator stem from the state's considerable health reform efforts that were underway prior to the passage of the ACA.

In its 2009 session, the Oregon legislature passed historic legislation to promote comprehensive health care reform. HB 2009 institutes a variety of reforms to Oregon's health system to contain costs and improve quality. The bill focuses on the triple aim of better health, better care and lower costs; it includes as a centerpiece, the development of a business plan for a Health Insurance Exchange to allow comparison shopping for insurance plans, as well as stronger insurance rate review standards, streamlining administrative functions and maximizing purchasing power by consolidating the state's health care purchasing into a single agency.

HB 2009 changed the structure of Oregon's state health and human services department and created the Oregon Health Authority. The OHA brings most of the health-related programs in the state into a single agency to align the state's health care purchasing and consolidate reform efforts. The Oregon Health Authority is responsible for the development of Oregon's Health Insurance Exchange and is the single state Medicaid agency, so it is particularly well-positioned to leverage the resources in the exchange technology grant. DHS continues to house both child welfare services and the state's senior and disability services and programs. DHS also operates most of the Medicaid eligibility functions, so the agencies continue to coordinate as two closely aligned sister agencies with appropriate service agreements in place.

The OHA has an oversight and policymaking body known as the Oregon Health Policy Board[1], a nine-member, citizen-led panel whose members are appointed by the Governor and confirmed by the Senate. The Health Policy Board has been responsible for engaging disparate stakeholders and communities all across the state in order to create recommendations for the Health Insurance Exchange that will help shape an Exchange bill to be discussed and approved in the state's next legislative session starting in January 2011. The critical partners that have collaborated in Health Policy Board

---

[1] For more information about the OHPB, see http://www.oregon.gov/OHA/OHPB/index.shtml.

workgroups and panels include commercial insurance carriers, providers and provider groups, Medicaid Managed Care Organizations, and consumer rights advocacy organizations. These groups will have a practical familiarity when they are again asked to collaborate to ensure the successful adoption of exchange technology.

HB 2009 also established the Health Information Technology Oversight Council (HITOC) to coordinate Oregon's public and private statewide efforts in health information technology. HITOC is a public-private partnership of Governor-appointed, Senate-confirmed citizens that has made considerable strides in research, assessment and planning for statewide information technology structures and practices. HITOC has appointed several advisory workgroups, including the Technology Workgroup, made up of industry experts responsible for providing strategic input on deliverables and objectives, standards, definition of central services, and other projects as needed. This workgroup and HITOC will be available for support and guidance during Oregon's development of Exchange technology.

HITOC submitted Strategic and Operational Plans for Health Information Exchange to the Office of the National Coordinator for Health Information Technology (ONC) in late August and received approval in December. These plans are another example of how Oregon is committed to aggressively pursuing advancements in system-wide improvements in health care through the use of information technology. The planning process that focuses on the dual goals of building infrastructure and ensuring end-user participation is available for reference while Oregon plans the Health Insurance Exchange.

The OHA's comprehensive strategy has fostered the creation of the Office of Health Information Technology (OHIT). OHIT is a newly formed office within the OHA that is designed to support the planning and policy development of health IT applications and programs. The staff of OHIT will serve in a supportive role for the planning of the Health Insurance Exchange. This office will serve as a shared resource for both OHA and DHS departments in need of planning and policy support while strategizing and adopting exchange technology. This grant will bolster OHIT in its efforts to accelerate state and federal health reform goals through organized support for adoption, implementation and integration of health information technologies.

Just as the OHA was conceived in part to maximize the State's purchasing power for health insurance, OHIT is designed in part to bolster the State's strategy for shared services architecture for health information technology applications. OHIT provides staff support and resources that can now be shared between projects and across departments. OHIT also facilitates centralized collaboration and coordinated service delivery that leads to fewer duplicative IT purchases, resulting in reduced costs, better coordination and cross-utilization of hardware and software with similar functions. Through these mechanisms, OHIT enables Oregon to leverage resources and institutional knowledge across agencies ensuring that the adoption of Exchange technology will be as cost effective as possible. This cost effectiveness will also extend to other states that take advantage of Oregon's innovation in Health Insurance Exchange information technology because they will not need solutions that must be customized for each administrative entity. OHIT will assist the Exchange team on technology matters, but the grant itself will be managed by the Exchange team, working out of the OHA Director's Office.

This exchange IT innovation grant project would also naturally pull from the State's strong relationships with stakeholders and partners within the health information technology communities in Oregon. These include O-HITEC (Oregon's Regional Extension Center for HIT), OCHIN, Oregon Health Network, Oregon Healthcare Workforce Institute, state and regional health insurance organizations, federal Department of Health and Human Services Public Health Division, Indian Health Service, Veteran's Health Administration and adjacent states' health departments.

State government leaders, stakeholders and supporters of an Exchange
The development of an Exchange and the early implementation of an IT solution for the Exchange are supported at the highest levels of state government. In addition to support from the Governor, this effort is fully endorsed by Dr. Bruce Goldberg, the Director-designee of the Oregon Health Authority (the state agency responsible for purchasing health care for 850,000 lives in Oregon, including those in Medicaid, Public Employees Benefit Board, Oregon Educators Benefit Board, Oregon's high risk pool, Family Health Insurance Assistance Program and Healthy Kids Connect.). Dr. Goldberg currently serves as the Director of the Oregon Department of Human Services as well. Dr. Goldberg has taken a personal role in the development of the Exchange, working with the Oregon Health Policy Board to develop recommendations to the Oregon Legislature on the shape and structure of the state's Exchange. A letter from Dr. Goldberg can be found in the included letters of support. Oregon's U.S. Senators, Ron Wyden and Jeff Merkley, have also provided a letter of support.

Judy Mohr-Peterson, Oregon's Medicaid Director, is also engaged in the development of the Exchange. Ms. Mohr-Peterson and other key state leaders participate in the Exchange Steering Committee, which helps direct and oversee Oregon's Exchange planning and implementation (see membership list below). These state leaders include Tina Edlund, OHA Deputy Director for Planning and Policy Implementation; Dr. Jeanene Smith, Administrator of the Office for Oregon Health Policy & Research; John Koreski, DHS/OHA CIO; Aaron Karjala, DHS/OHA Deputy CIO; and Erinn Kelley-Siel, Administrator of the Children, Adults and Families Division of DHS. Additional support will come from the newly formed Office of Health Information Technology and Carol Robinson, Oregon's State Coordinator for HIT and director of the Health Information Technology Oversight Council.

Several health insurers in the state have expressed public support for the development of an Exchange in Oregon, through letters submitted to the Oregon Health Policy Board as public comment. Consumer advocates engaged in health reform are also invested in the benefits an Exchange could bring to Oregon markets. Individual and small business consumers participate in a Consumer Advisory Group for the Exchange development and implementation. This group provides input and assistance as the state designs elements of its Exchange and begins to implement those designs.

As part of the work to develop this application, Oregon reached out to other states to establish an interstate advisory group to share information and receive partner feedback during the development process of this project. Letters of support have been received from the following states, which have also agreed to participate in a multistate advisory group:
- California Department of Health Care Services
- Illinois Department of Healthcare and Family Services
- Maryland Department of Health and Mental Hygiene
- Minnesota Department of Human Services
- Washington Health Care Authority

- Wisconsin Office of Healthcare Reform

Readiness: Stakeholder Engagement
Oregon has established an Exchange Consumer Advisory Group (CAG) and a Technical Advisory Group (TAG) for the development of its Exchange (see membership lists below). The CAG includes individual and small employer insurance purchasers, an insurance agent, and a consumer advocate, as well as medical and social service providers. The CAG members will provide input and assistance on issues related to the consumer's experience of the Exchange, the health plan choices available through the Exchange, ways to inform and engage consumers and related issues. The Exchange TAG, which includes representatives of health plans, consumer advocacy organizations, providers and state agencies, provides feedback on technical issues such as the organization of the Exchange, the implications of expanding the small group market in 2014, and related issues. Both groups have begun meeting and will continue to provide feedback to the Exchange implementation team through the development and implementation process.

In addition, public input is welcome through various means, including through public testimony offered in writing or in person at the Oregon Health Policy Board meetings, and electronic comment provided through the OHA website.

Continued stakeholder engagement
In addition to the stakeholders identified above, Oregon has also met with brokers, providers and health insurers to get their feedback on the development of the Exchange. We anticipate continuing to hold such meetings in order to get honest feedback from various stakeholders. In September the OHA held a series of six meetings across the state, focusing on several key policy issues related to Oregon's Exchange. Meetings were well attended and participation was enthusiastic. Attendees provided useful feedback on Exchange policy issues that informed the development of the Oregon Health Policy Board's report on the Exchange to the state legislature. In addition, feedback was collected using a web-based survey tool.[2] Ongoing feedback from these groups will allow the Exchange team to ensure that project stakeholders' thoughts and values are heard and incorporated into the Exchange design to the greatest extent possible.

Exchange Steering Committee
- Tina Edlund, Deputy Director for Planning and Policy Implementation, Oregon Health Authority
- Karen House, Program Manager, Children Adults and Families Division, Department of Human Services
- Tom Jovick, Administrator, Office of Private Health Partnerships, Oregon Health Authority
- Aaron Karjala, Deputy Chief Information Officer, Department of Human Services
- Rocky King, Senior Policy Advisor for Health Reform Senior Policy, Department of Consumer and Business Services
- Sean Kolmer, Deputy Administrator, Office for Oregon Health Policy and Research, Oregon Health Authority
- John Koreski, Interim Chief Information Officer, Department of Human Services

---

[2] For more information on the stakeholder meetings and feedback received at those meetings, please see: http://www.oregon.gov/OHA/docs/101004-consensus -rpt.pdf . For information on the comments received via the OHA web-tool, please see: http://www.oregon.gov/OHA/docs/web-input-2010.pdf.

- Teresa Miller, Administrator, DCBS Insurance Division, Department of Consumer and Business Services
- Judy Mohr-Peterson, Assistant Director, Division of Medical Assistance Programs (Medicaid Director), Oregon Health Authority
- Don Myron, Policy Analyst, Office of Private Health Partnerships, Oregon Health Authority
- Kathryn Naugle, Deputy CIO for the Children, Adults and Families Division, Department of Human Services
- Steve Novick, Medicaid Eligibility Transformation Manager, Oregon Health Authority
- Dr. Jeanene Smith, Administrator, Office for Oregon Health Policy and Research, Oregon Health Authority
- Barney Speight, Director, Health Care Purchasing, Oregon Health Authority

Consumer Advisory Group
- John Brenne, Community Counseling Solutions, Heppner, OR
- Aelea Christofferson, President, ATL Communications, Sunriver, OR
- Laura Etherton, Health Care Advocate, OSPIRG, Portland, OR
- Heather Fercho, Research and Health Policy Associate, Sisters of the Road, Portland, OR
- Jose Gonzalez, Tu Casa Real Estate, Salem, OR
- Alisha Hopper, Executive Director, Health Matters of Central Oregon, Bend, OR
- Jim Houser, Owner, Hawthorne Auto Clinic, Inc., Portland, OR
- DeLeesa Meashintubby, Senior Operations Officer, Volunteers in Medicine Clinic, Eugene, OR
- Tera Pierce, Individual Consumer, Portland, OR
- Beth Stewart, Co-Owner, Valley Insurance, La Grande, OR

Exchange Technical Advisory Group
- Andy Anderson, Senior Vice President and CFO, Cascade Corporation
- Anthony Behrens, Senior Policy Analyst, Insurance Division, Oregon Department of Business and Consumer Services
- Barbara Christensen, Chief Sales and Marketing Officer Providence Health Plans
- Aelea Christofferson, Owner, ATL Communications, Inc
- Mark Danburg-Wyld, Senior Actuarial Analyst, PacificSource Health Plans
- Laura Etherton, Advocate, Oregon State Public Interest Research Group
- Tom Jovick, Administrator, Office of Private Health Partnerships
- Dean Kortge, Agent, Pacific Benefits Consultants
- Patrick O'Keefe, Partner/Account Manager, Cascade Insurance Center
- Anna Roberts, Organizer, SEIU Local 49
- Carole Romm, Director, Community Partnerships and Strategic Development, Central City Concern
- Barney Speight, Director of Healthcare Purchasing, Oregon Health Authority
- Nita Werner, President and CFO, Ornelas Enterprises, Inc., Oregon Health Policy Board member

GOVERNANCE

Exchange Business Structure
Oregon has drafted a legislative concept that will be introduced as a bill in the 2011 legislative session. This bill is the authorizing legislation for the Exchange, establishes a public corporation that will run the state's Exchange, governed by a board and advised by consumer advisory groups. The legislation authorizes the public corporation to conduct the activities required by the Affordable Care Act, including: information provision; health plan certification and grading; facilitating the operations of navigators; conducting open and special enrollment periods; certifying exemptions from the individual responsibility requirement; consulting with consumers and other stakeholders; providing information to the federal government and publishing information on Exchange operations and costs. The legislation also gives the Exchange authority to enter into contracts, work with existing/relevant state agencies and accept federal and other funds.

Once Exchange-authorizing legislation passes in the 2011 legislative session, the Governor will appoint and Senate will confirm the Exchange board members. In fall 2011, the Exchange will be established as a public corporation and staff will be hired for this organization. Once the Exchange exists as an organization with leadership and staff, the work of developing an Exchange will fall primarily to the Exchange team working for the public corporation. However, the work being conducted under this grant will continue in partnership with the OHA and DHS. Until the public corporation is established and able to conduct its work independently of OHA, OHA will staff this work. The Oregon Health Policy Board has the authority to provide policy guidance until the Exchange board is established and ready to take on those duties.

Commitment to sharing innovative solution with other states
Oregon is committed to sharing its technical solution (including the software, architecture, configurations and business processes for Oregon's eligibility and enrollment processes). This also includes sharing development artifacts, including work plans, requirements documentation, design documentation, and timelines. The State will provide all materials to the federal Office of Consumer Information and Insurance Oversight and will work with interested states and the federal government to present Oregon's solution, the development and implementation issues involved in this solution, and provide consultation for how other states could adopt Oregon's technology solution.

Oregon's technology solution for its Health Insurance Exchange has broad applicability and reusability for streamlining eligibility and enrollment for Medicaid clients as part of its effort to develop a user-friendly eligibility and enrollment system for people using the Exchange. The program will be particularly applicable to states in which the Medicaid program is administered by a different agency or organization than is the exchange. The long-term goal of integrating streamlined non-medical social services eligibility determination and enrollment will also be useful for many states, no matter how their social services are structured. Oregon has already secured letters of support from the states referenced above to collaborate with Oregon as we design, develop and implement the solution. As part of this process, Oregon will be sharing public domain documents and product solutions with the other states.

Oregon is committed to share its system architecture and associated planning and implementation artifacts. Oregon's plan is to create a technical solution for the Exchange that facilitates a continuous

subsidy for everyone within income from 0 to 400% of the federal poverty level. The technical solution will provide this continuity for all individuals without regard to income level. The technology must support the concept of continuous health coverage that is evenly applied with no cliffs or gaps in coverage.

READINESS: TECHNICAL ARCHITECTURE

Oregon is in a unique position to quickly determine the technology requirements for an Exchange because the State has already developed many requirements relating to Medicaid eligibility. Oregon is currently in the process of documenting detailed eligibility functional and technical requirements that are essential to the RFP process for obtaining a technical solution. The State will include additional requirements for the Health Insurance Exchange. The anticipated rules framework Oregon plans to procure supports automation of benefit eligibility determination, interfaces with existing benefit systems and creation of insurance exchange functionality. Oregon's strategy will be to acquire an implementation/integration vendor to implement and integrate the Exchange.

A vendor fair conducted in August 2010 identified a selection of vendors with products meeting solution needs in the area of eligibility: intake through citizen portals, workflow automation through worker portals, and benefits determination through policy and rules automation. Vendors were contacted after the fair to find out more about their solutions' readiness to support health reform. This foundation can be extended to creating all aspects of a Health Insurance Exchange, including supporting individual consumers, group purchasers and interactions with other states and the federal government.

Current/legacy software and hardware
DHS/OHA Current State
Over the past 30 years, the current DHS/OHA legacy systems were developed on different platforms including mainframe, client/server, distributed and Web-based architectures. In recent years Oregon has matured its development efforts with the use of a system development lifecycle (SDLC), resulting in solutions that more closely align with business needs and the 2009-2015 DHS/OHA enterprise technology plan (http://tinyurl.com/23aetyw). In approving the 2009-2015 enterprise technology plan, the DHS/OHA Information Technology Governance Council adopted a vision of rational, service-based architecture for state IT systems including eligibility determination systems. Oregon has already begun seeking opportunities to implement this vision.

Oregon's most flexible and modern applications are based on Web Services Architecture using SOAP and WSDL and are aligned with service-oriented architecture approaches.

Limitations. Because of Oregon's many disparate systems, only a limited amount of client information is accessible and reusable across multiple programs. Inconsistent data are stored in application silos with duplicated functionality where security and access varies. In addition, Oregon has developed hundreds of custom interfaces between these silos to support integrated business processes, making systems extremely complex, inflexible and expensive to maintain. The grant funds will allow Oregon to begin the move to a system that no longer requires custom "fixes" that bridge between legacy systems. Starting with a system for commercial and Medicaid eligibility and enrollment, we will build

a system that will eventually expand to other social service programs, allowing the state to move past its current reliance on inflexible systems in separate silos.

Software and Hardware. The vast majority of current systems are hosted in the Oregon State Data Center. Many of the current OHA systems are based on IBM mainframe, AIX midrange servers and distributed servers running within the Microsoft Windows Server or Linux operating system environments. The client server systems were developed using legacy tools such as Sybase PowerBuilder and databases. Web-enabled systems primarily use Websphere, .Net, Java. or ColdFusion. Oregon uses DB2, Microsoft SQL Server and Oracle relational databases for data storage and management and uses integrated development tools like Rational Application Developer (RAD) and Eclipse and tools such as JIRA and Subversion for issue tracking and application source code management (SCM).

Custom Development Efforts and COTS Implementations. Over the last several years, Oregon developed custom solutions or implemented proprietary commercial products to meet critical business needs. Over time, the custom development and product development processes have matured, making it an optimal time to begin migration to a configurable and commercial framework. This is a natural evolution in terms of people, process and technology change. Oregon's current technology environment will not be sufficient to develop the seamless consumer experience required as part of the Affordable Care Act.

Target system software and hardware
In 2009 the Oregon DHS and OHA adopted the 2009-2015 technology plan to enable the coordinated, consistent delivery of health and human services in Oregon. This plan created a roadmap to migrate from silos of custom-developed and proprietary commercial applications to a framework-based technology infrastructure that supports increased organizational flexibility and responsiveness to changing customer needs. Oregon believes that this migration is necessary to achieve the objectives and goals of health care reform.

Consistent with Oregon's enterprise technology plan, the State is implementing a modern IT infrastructure based on technology standards and a configurable commercial framework. See the Oregon technology plan at http://tinyurl.com/23aetyw for more information.

Commercial Framework
Based on market research, Oregon has concluded that the procurement of a commercial framework of business rules management, internal portal, external portal, back office integration tools and a shared reporting infrastructure based on a service-oriented architecture is a key strategic investment for achieving the State's technology vision. As part of the package, the commercial solutions are configured to meet federal rules. Oregon asked vendors to respond to a series of questions specific to their investment, partnering, and preparation for the impacts of H.R. 3200, America's Affordable Health Choices Act of 2009 (an early version of health reform) and H.R. 4872, Healthcare and Education Affordability Reconciliation Act of 2010. Their responses demonstrated the vendors' awareness and intention to align with health reform including the Affordable Care Act (the health reform legislation that ultimately became final).

The commercial framework approach offers many benefits both for implementing and operating the Exchange. These include:
- Holistic view of consumer both from a data and process perspective
- Health and Human Services best practices and alignment
- Comprehensive view of clients for workers
- Cost reductions and economies of scale created by multiple clients
- Technology best practices and standards
- Integrated eligibility solution
- Rules engine
- Robust messaging
- Data warehousing and reporting
- Workflow and process automation
- Configurability with minimal customization

Oregon also plans to use the commercial framework across all program areas including an eligibility automation project that supports Medicaid, Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance to Needy Families (TANF) and Employment Related Day Care clients (ERDC). This project is entering a procurement phase. This approach, which is consistent with Oregon's technology plan, will enable the State to create a seamless environment for clients and consumers.

Future Hardware and Software
Oregon DHS and OHA envision the commercial framework to be hosted in the Oregon State Data Center. The future state platform will be robust and will be selected from an industry leader such as IBM, Oracle or Microsoft. Technologies involved include UNIX, Java, Websphere and/or .NET technology, Sharepoint etc. Potential databases could be Oracle, MS SQL Server and DB2. The final decision on platform will be based on: the solution that best meets business needs of the Exchange and best aligns with the DHS/OHA technology plan. The selected commercial solution framework will be three-tier architecture and will be required to have SOA, web 2.0 and XML capabilities.

Policy-Rules Engine
Market research and strategic alignment demonstrates the value of central management of policies and rules across programs in a shared environment. The policy-rules engine is a foundational component of the framework solution Oregon will implement. The policy-rules engine allows natural language definition and audit and versioning capabilities that reduce the complexity of managing rules while reducing errors in their implementation. Oregon will use the policy-rules engine and other integrated framework components to help consumers compare health insurance products, provide consolidated billing and premium payment for employers and help small businesses manage health insurance administration in a seamless way.

The underlying infrastructure of the framework and the configuration will be made available to other states to accelerate nationwide implementation of insurance exchanges. Oregon fully intends to partner with other states in an advisory capacity as we design, develop and implement the fully configured framework. Oregon will lead a series of interstate advisory meetings during the development of the Exchange. Oregon is also committed to serving in a consulting role for states that decide to use the Oregon framework and configurations to meet their health insurance exchange objectives.

In addition to providing a marketplace for individual consumers seeking Medicaid and commercial insurance, groups and insurance plans, the longer-term plan for the framework is that it will also automate the intake, assessment and determination of eligibility across the other major benefits programs: ERDC, SNAP and TANF. The eligibility component of the framework supports the essential criteria of the Health Insurance Exchange and represents modules that will be both comprehensive and reusable by other states. As part of Oregon's technology plan, the framework will use open standards-based interfaces to other state systems to ensure that enrollment, tax credits administration and cost-sharing assistance administration are seamless for consumers, clients and insurance plans. The framework and interfaces to other systems will be deployed to ensure that as consumer and client eligibility changes, they will continue to receive the best possible mix of benefits and value.

The graphic below depicts the integration of people, process and technology to facilitate a seamless consumer experience within the Exchange.
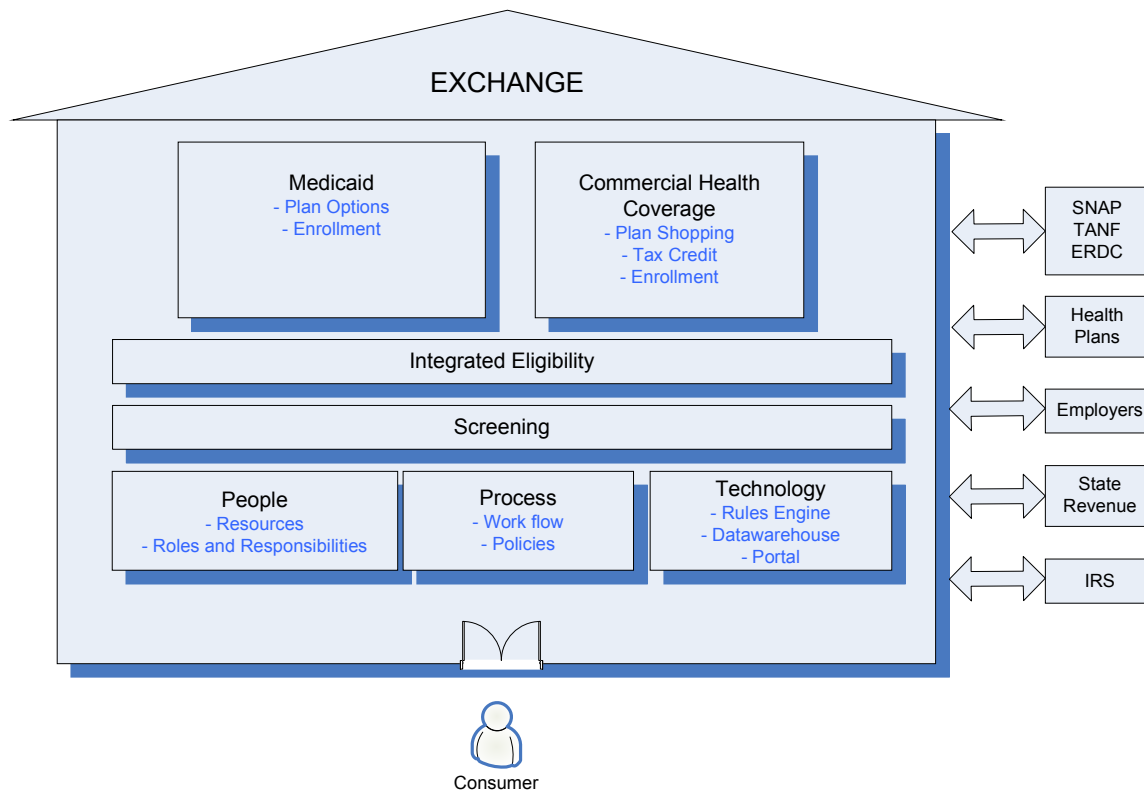
CORE EXCHANGE FUNCTIONS

In addition to providing an easy way for individuals and small businesses to shop for coverage and enroll in health plans, Oregon's framework will automate the intake, assessment and determination of eligibility for both tax credits and Medicaid eligibility. Oregon has already made significant progress in designing the eligibility processes that will be implemented in the Exchange using the framework developed for a modernized eligibility and enrollment process for public health and social service

programs. The technology solution will employ standard modules including the rules engine, financials, workflow, reporting, portal and interface tools to manage the key insurance exchange functions of eligibility, enrollment, premium tax credit administration and cost-sharing assistance administration. Oregon has determined that the framework will use open standards-based interfaces to other systems to ensure that enrollment, tax credit administration and cost-sharing assistance administration is seamless for consumers, clients and insurance plans.

Integration with Medicaid, Children's Health Insurance Program, federal agencies
The framework will use a rules-based engine that can be configured to address any number of policies and rules for meeting the insurance Exchange requirements. The framework and interfaces to the Medicaid Management Information System (MMIS) will be deployed using open standards and a service-oriented architectural approach. The interface module in the framework can accommodate all of the standard interface types (real time, file-based, etc) to ensure integration to external systems to support the Exchange program, including the Children's Health Insurance Program, Medicaid, and the U.S. Department of Health and Human Services (HHS) and other federal and state agency data sources.

Additional core functions
The framework will employ standard modules including rules engine, financials, workflow, reporting, portal and interface to manage the key insurance exchange functions of eligibility, enrollment, premium tax credits administration and cost sharing assistance administration. The modules will be configured to support the core Exchange requirements, allowing consumers to determine eligibility for Medicaid and federal tax credits, compare health plans on an apples-to-apples basis, and enroll in coverage.

Readiness: Meeting consumer needs
The Exchange program will provide multiple channels for managing consumer complaints, questions and requests for assistance. There will be a call center for consumer relations along with 'self-help' functionality through the framework's integrated web portal. Additional work will be required to determine whether the call center will be administered by state employees or a private contractor, but we recognize that this work must be conducted by an informed and consumer-oriented staff. Resources available include the OHA's ombudsman. Related internal processes are in development as part of Exchange planning and implementation.

Migration of commercial insurance and Medicaid consumers to Exchange
To ensure that individual and group health insurance consumers are prepared to use the new Exchange's web-based application and enrollment technology, we plan to carry out education and outreach to individuals (including but not limited to Medicaid clients), small businesses, state eligibility workers, state human services employees, and other individuals and groups assisting with Medicaid application and enrollment. This will include a large-scale public education campaign as well as targeted education and marketing aimed at specific communities within Oregon (including but not limited to various ethnic, racial, geographic and economic groups).

Applicability in other states
As an early innovator, Oregon is committed to producing a solution that is not only right for our state but, just as important, can be used by many of the other states facing the same challenges in creating health insurance exchanges. At the end of the two-year grant period Oregon will have designed and

implemented a technology solution based on a configurable framework that can be used by other states. The framework will be configured to establish universally essential components using best practices that are cost-effective, consumer-oriented and take into account the interest of employers, especially small businesses. Because the framework is configurable, other states can apply specific policies and rules to the Oregon solution without major customization or remediation efforts. As part of our approach, Oregon has already begun working with multiple states to ensure a program and technology solution set that can be reused.

Oregon will follow a standard and documented development and sourcing methodology that other states can replicate. Using the Oregon approach, states can exploit our RFP, analysis, design, architecture and other planning processes to help accelerate their procurement, development and implementation activities. Finally, Oregon will utilize an open standards-based commercial framework to develop benefit eligibility determination automation as well as citizen and caseworker portals. While other states wanting to implement the same solution set would need to procure the same commercial framework, pay licensing fees and potentially procure the services of a solutions integrator, Oregon's implemented solution would be available for other states to accelerate their own exchange efforts.

PROGRAM REQUIREMENTS

Key Principles
Systems Development Life Cycle (SDLC) frameworks
Oregon has a well-developed project and systems development methodologies and is positioned to fulfill the requirements of the Exchange. Oregon has completed foundational work by in the areas of system design documents, test plans and traceability matrices, data models and technical architecture diagrams of the basic framework that will accelerate the Exchange project. Oregon has already defined the basic architecture of an integrated solution where rules definition drives front-end citizen interface and can be extended to Exchange needs, enabling Oregon to meet the required federal timelines for early exchange innovators.

Sharing of requirement specifications, analysis, design, code, and testing
Clearly documented requirements specifications, detailed analysis, design (external and internal) and testing documentation will be made available to other states for reuse. Coding will follow rigorous standards in development and will be made available to the Office of Consumer Information and Insurance Oversight (OCIIO) and states interested in using the Oregon approach.

Web services architecture and service-oriented architecture
Web services and service-oriented architecture (SOA) are being used in existing solution implementations, and will be used to implement the Exchange. Oregon identified that the mature commercial frameworks employ these loosely coupled architectures as part of their solutions. These architectural standards are essential to the capabilities described in the Oregon enterprise technology plan, in addition to meeting the program requirements of the Exchange. This approach allows the rules used to determine tax credit eligibility, Medicaid eligibility and other program elements to be easily revised, allowing the exchange to quickly respond to federal, state and market changes.

Web services registry
Oregon identified that all of the major configurable frameworks under consideration employ a service registry based on a fully compliant Universal Description, Discovery and Integration (UDDI) registry. The registry provides a standards-based interface for an SOA runtime infrastructure to dynamically discover and use Web services allowing the solution to remain extremely configurable and flexible.

Office of the National Coordinator Standards
Oregon's Health Policy Research group monitors guidance, policy and standards published by the federal government, including the Office of the National Coordinator. We will continue to monitor standards published by the ONC, and employ changes in direction, implementation, as part of our project and systems development methodologies.

National Institute of Standards and Technology Requirements
The design of the eligibility modernization system follows the standards published by the ONC. The State will assess and test a minimum of 194 controls that address National Institute of Standards and Technology (NIST) 800-53 requirements. These requirements will be applied to the information assets of the Exchange. These controls address issues such as establishing proper IT personnel training and operationalizing key monitoring and logging concepts, among many others. The State will use governance and compliance tools (e.g., CA GRC Manager) to monitor and assure compliance with the NIST requirements.

Account security standards and controls
The State has identified at least six information privacy and security standards (see Section 1561 privacy and security) that will be applied to the protection of the information assets and the Exchange system. The State will align with NIST guidelines. These include configuration management, personally identifiable information, security testing and assessment and password management.

Information Technology Standards
Oregon has already adopted a standards and methodology-based approach to implementing information systems. Oregon's enterprise technology plan, project management and system development methodologies will be employed to ensure IT Standards are followed for implementation of the Exchange. In particular, Oregon is committed to following the Verification Interface, Business Rules, and Transmission of Enrollment Information and Privacy & Security guidelines and recommendations as outlined in Section 1561 of the Affordable Care Act to ensure that solution sets are developed using modern technology and processes that are scalable, sustainable and maintainable to most effectively meet citizens' needs in the areas of health coverage and eligibility benefits. Our solutions will ensure that citizens can seamlessly connect with health coverage and human services (SNAP, TANF, ERDC) and that the privacy and security of their data is protected.

Compliance with future HHS guidance
Oregon has assigned points of contact to monitor both IT and program guidance as it is issued through HHS. These staff members are responsible for distributing guidance and for ensuring that appropriate decision makers and system owners take steps to comply with any guidance issued by HHS. The State points of contact for IT guidance related to the Exchange and Medicaid are Aaron Karjala, Deputy Chief Information Officer; Nora Leibowitz, Development Director of Exchange; and Judy Mohr-Peterson, Assistant Director of the Division of Medical Assistance Programs.

Previous Advanced Planning Documents
Oregon has been working in close partnership with the Centers for Medicare & Medicaid Services (CMS) over the last decade. Oregon has submitted and received approval for the following Advanced Planning Documents in the last three years:

- *Medicaid Management Information System (MMIS) Replacement*. This APD requested enhanced funding to implement a new MMIS, which went live December, 2008. Oregon is in the final stages of certification of the new Medicaid system and has closely partnered with CMS during the planning, implementation and post-implementation phases of the system replacement.
- *Medicaid Information Technology Architecture State Self Assessment (MITA SS-A)*. The MITA SS-A Planning APD requested enhanced funding for completing the MITA state self- assessment process provided by CMS. Oregon has worked closely with CMS to integrate the initial 'as-is' phase of the MITA SS-A process with the MMIS certification and will continue Medicaid future state planning through 2011.
- *5010 / ICD-10 Planning*. Oregon submitted an APD to request enhanced funding for remediation of the MMIS to support the 10th revision of the International Classification of Diseases (ICD-10) as well as the 5010 version of the X12 HIPAA transactions. Oregon received approval on the APD and is currently working closely with CMS to submit its first APD update for this effort.
- *National Correct Coding Initiative (NCCI)*. Oregon is submitting a Planning Advanced Planning Document to receive enhanced funding to implement new Medicaid NCCI methodologies into our MMIS based on section 1903 of the Affordable Care Act. The submission of the PAPD is still in process and Oregon is awaiting final CMS approval.
- *Medicaid State Medicaid HIT Planning (MHIT)*. The MHIT Planning APD was submitted to request enhanced funding for development of Oregon's Medicaid Electronic Health Record (EHR) Incentive program and several related initiatives that will promote adoption and meaningful use of certified EHRs for Medicaid providers, develop a coordinated network of Medicaid-related state systems (called the Medicaid Health Information Network) and connect state systems where appropriate to Oregon's statewide health information exchange. The planning phase will result in a comprehensive, coordinated State Medicaid Health Information Technology (HIT) Plan (SMHP) and Implementation APD that recognizes the HIT needs of Oregon's Medicaid clients, providers and DHS/OHA programs. The SMHP and IAPD will be a key component of the overall State HIE Strategic and Operational Plans developed by Oregon's Health Information Technology Oversight Council (HITOC) as part of the federal Office of the National Coordinator (ONC) State HIE Cooperative Agreement Program.
- *Self Sufficiency Modernization (SSM).* This APD was approved by CMS and Food and Nutrition Service in October 2010. This provides federal funding match for planning activities to develop solutions enabling citizens to apply for eligibility benefits online, caseworkers to process those applications and automation of eligibility determination.

In all cases, Oregon submitted APDs in accordance with 45 CFR §95.611(b): Specific prior approval requirements and obtains written approval from CMS prior to the initiation of project activities requiring enhanced federal funding. Oregon's strategy is a close partnership with CMS during APD creation and during execution of approved initiatives. Oregon complies with all instructions issued during approval from CMS.

Readiness: Collecting Data and Information
Structure of current reporting system
The technological environment has adequate reporting and decision support capabilities for the way that Oregon currently does business. The framework will incorporate a standard data and reporting infrastructure that will better support the more integrated needs of business process changes introduced with health care reform.

Adapting to new reporting demands
The framework Oregon is procuring will provide effective business intelligence, decision support and data warehouse solutions supported by an integrated data model. Oregon has analyzed the current state of its information capabilities and information gaps and is developing a roadmap that will address both the short-term and long-term reporting needs created by health reform.

The following are some of the basic reporting capabilities that Oregon is seeking to achieve in the near-term:
- Transform from transactional reporting to business intelligence supported by a data warehouse.
- Expand reporting capabilities/flexibility and provide better performance measurement statistics.

Process for consumer, small business complaints
The Exchange program will provide multiple channels for managing consumer complaints, questions and requests for assistance. Oregon will offer a call center for consumer relations and through the framework's integrated web portal. Additional work will be required to determine whether the call center will be administered through state employees or a private contractor, but we recognize that this work must be conducted by informed and consumer-oriented staff. Resources available include the OHA ombudsman; internal processes are also in development as part of the Exchange planning and implementation.

Open architecture and interfaces
The framework will have a mature reporting environment and will employ open interfaces, i.e., based on XML and other open standards to efficiently transmit information to insurers, HHS and other external organizations. The State will have procedures and policies to ensure appropriate governance and security for these transmissions.

Health plan data
Oregon will collect information from participating insurance carriers on their health plans, both to make plan certification, recertification and decertification determinations, and to utilize that information in the Exchange's interactive web portal. Information required will be standardized so that consumers will be able to easily make plan comparisons and choose the plans that work best for them. In addition, the Exchange will provide information to the plans on enrollees and receive information on plan disenrollments, premium payment issues and reconciliation.

The Exchange will have access to the state's All Payer Claims Database, which will serve multiple purposes: allowing the exchange to examine the need to improve risk adjustment efforts; and conducting quality and cost effectiveness evaluations. In addition, claims and encounter data can be received from the participating plans to conduct risk adjustment and performance evaluations necessary

for Exchange performance. Such data will allow the state to evaluate issues such as the specific loss ratios for plans offered by a specific carrier.

Readiness: Project Work Plan
This project will use five coordinated and concurrent work teams to establish the major functional domains of an integrated Health Insurance Exchange. Though loosely coupled, each functional domain is dependent on the others to support the business processes of the exchange.

The proposed grant activities will design and implement a seamless and modern technical solution for Oregon's Exchange. Project team members are concurrently engaged in the design and implementation of the Exchange business processes and operations.

The project work plan is structured to facilitate the implementation of the Health Insurance Exchange with the following five domains:
* *Business Rules Management System.* This body of work consists of the development of business rules to manage all of the workflow and business processes that support the Exchange, including federal subsidy eligibility determination and Medicaid eligibility determination.
* *Internal Portal.* This body of work consists of establishing the web-based screens and workflow so that OHA and DHS can manage the Exchange. The internal portal uses the business rules management system to establish internal business processes including, but not limited to, ongoing case management functions such as monitoring for changes in eligibility, management of open enrollment and detecting fraud.
* *External Portal.* This body of work consists of establishing the single presentation of the Exchange to consumers, employers and insurance carriers offering health plans in the Exchange. The portal uses the business rules engine to enable comparison and selection of health plans by consumers and also uses the back office integration tools to prepare and submit payments and premiums to insurance plans.
* *Back Office Integration.* This body of work involves configuring the enterprise services bus[3] and other tools to integrate with program management systems such as health plan information systems and the Medicaid Management Information System (MMIS). Ultimately, the back office integration takes output from the eligibility rules configured in the business rules management system and prepares it in a format that can be delivered to MMIS or commercial insurance plans for benefit enrollment or to other State and Federal Systems for verification.
* *Reporting.* This body of work consists of implementing the transactional, decision support and compliance reporting functions from information gathered from the back office data stores. It includes both operational "canned" reports for business management and the establishment of a data warehouse for more sophisticated program management and decision support needs.

The project plan above is a core component of a comprehensive work plan that is part of this application package.

---

[3] An enterprise service bus is a software architecture construct that provides fundamental services for complex architectures using an event-driven and standards-based messaging engine (the bus).

Readiness: Resource Plan
Oregon is fully aware of the programmatic and technical complexity of implementing a fully integrated Health Insurance Exchange that provides a seamless experience for the consumer. The complexity of integrating across program silos poses risks to existing business operations, as well as to the ability to implement innovative programs like the Exchange. The modernization strategy outlined in Oregon's enterprise technology plan puts us in a unique position to implement a Health Insurance Exchange that meets the principles outlined in the funding opportunity announcement. The effort will employ the commercial framework that the State has already begun planning efforts to procure. The strategic guiding principles of the technology plan provide that the framework will adhere to requirements of the Exchange to the extent possible. All budgets, FTE estimates and potential risks related to Exchange integration with Medicaid eligibility are being considered within this program. Furthermore, Exchange technical requirements are consistent with the modernization principles within the enterprise technology plan. Oregon has already begun the initiation and planning stages of the framework and is entering the procurement planning phase. See the attached budget narrative and detailed budget spreadsheet for specific information about the resources we expect to need to carry this out.

Predicted annual budgets
Oregon's predicted budget for the first year of the project is $46,512,101. The predicted budget for the second year is $49,678,237. Both predicted annual budgets are based on industry standard project and system planning methodologies that utilize General Services Administration (GSA) schedules, representing "tier 1" contracted rates, and State historical costs. Per the GSA schedule, rates are reduced based on the estimated dollar value of the contract. Rates in the budget represent a 20% reduction. Due to the accelerated schedule involved in this project and the anticipated scope, significant contracted services are utilized in the Project Work Plan. The contracted staff mitigates the key resources critical path constraints, so that each track within the project has dedicated staff with cross-functional expertise to develop solutions in parallel to meet project deadlines. See the attached budget narrative and budget detail spreadsheet for further details.

FTE estimate
Oregon's approach uses 141 total FTE. This estimate was developed using industry standard project and system planning methodologies. These resources represent a mixture of internal and contract project staff. Again, due to the accelerated schedule involved in this project and the anticipated scope, multiple project tracks to develop solutions simultaneously to meet project deadlines are used. See attached budget detail spreadsheet and program structural plan for further details.

Potential risks
Oregon has identified several risks that must be mitigated to ensure successful implementation of a Health Insurance Exchange. Our mature project and systems development lifecycle methodologies provide a solid platform for identifying, mitigating and responding to risk and recognize the challenges of managing the inter-dependency between the exchange and benefit eligibility determination on an aggressive timeframe. Following is a limited set of specifically identified risks for implementing the Exchange:
- The highly integrated nature of the Exchange will result in significant changes to State policies, processes and procedures.
- There will be competing demand for staff resources.

- There are a variety of political influences at the state and federal levels that can impact implementation.
- The implementation timelines are aggressive and must be managed closely.
- The size and complexity of the project will require solid project management and governance.
- The current technology environment is highly complex and fragmented.
- Policy directions within the federal program are still in refinement and some changes could dramatically impact technology requirements.
- The technology and business rules to support the Exchange are relatively leading-edge.

Oregon will prepare for and respond to potential risks as we plan and implement our IT solution. The State benefits from high-level support for the Exchange and its IT solution, both within relevant state agencies (including OHA, DHS and Department of Consumer and Business Services) and by the Governor and Legislature. The relevant state agencies are full partners in the development of Oregon's Exchange solution and will continue to work with the Exchange's public corporation once that organization is established in fall 2011. Similarly, the State is working closely with OCIIO and CMS, providing input on proposed rulemaking and assisting where possible in the development of relevant federal guidance and requirements. Our state and federal partners are committed to the development of a technical solution for the Exchange and will work together to ensure that the technology and business rules support Exchange implementation and operations. By employing the systems development lifecycle processes, Oregon is confident that we will fully identify and respond to risks related to successful implementation of this project.

Analysis of proposed budget's cost effectiveness
Oregon has used our mature project and system planning methodologies to create a reasonable plan that addresses the people, process and technology requirements to implement the Exchange. The activities supporting the creation of our enterprise technology plan provides a solid basis for a reasonable set of assumptions for successful implementation. Oregon's previous efforts related to developing a plan for modernizing eligibility and enrollment processes for public social services programs (self sufficiency modernization, or SSM) provided guidance for the development of the project budget, deliverables and staffing plan. Based on our experience with SSM, Oregon's Exchange planning team believes that the proposed project plan is reasonable and can be completed with the proposed staffing resources and project budget.

Evaluation
To accomplish an effective single point of entry for all clients, the Exchange will need to accommodate current health program eligibility determination. Performance metrics will be used to assess progress throughout the project implementation. Key indicators will include output, timeliness, cost effectiveness, and outcome metrics.

Output and timeliness measures will focus on the development and implementation of the interactive web-based solution and its project management. A key measure of success is the flexibility incorporated in the project's design. Wisconsin's implementation of its ACCESS system[4] offers guidance in developing our own eligibility product and insight into the flexibility required to interact with current legacy eligibility and enrollment systems.

---

[4] Wisconsin's ACCESS system is a self-service, web-based tool that allows residents to determine health care and social service program eligibility, apply for, check and renew their benefits, and report status changes.

Cost effectiveness will be measured by benchmarking against other states where electronic eligibility systems have already been successfully established; once again Wisconsin will be a key comparator. Oregon will also measure the efficiency gains and cost reduction associated with replacing the current limited and non-integrated eligibility systems.

Output metrics will consist of benchmarking to current eligibility practices as well as capturing the efficiencies realized through automation of the current paper-intensive manual processes. Specific measures will include: system utilization and adoption, LEAN (touch time) process improvements, reductions in case backlog and case determination time, technology adoption (how readily the technology is adopted by end users and eligibility staff), overall program enrollment changes, and many data quality metrics currently unavailable due to the lack of data integration in the legacy data systems.

Also, once the technical solution is established, we will measure how long it takes for required information to be imported into the system to make eligibility determinations final. Other measures – such as how many users begin the process without completing it, how often people who abandon the process midway return to finish their applications and enrollment materials, and the number and content of consumer complaints – and other feedback will be used to determine the success of the technical solution and its utility to consumers.

Readiness: Standards
National Information Exchange Model (NIEM)
As part of Oregon's Information Security policy, the State has incorporated the Information Exchange Package Documentation (IEPD) lifecycle of NIEM into our design and development processes. This strategy will allow us to integrate data across domains within the framework to facilitate enrollment of individuals using common data among multiple systems.

Data management implications
- NIEM requires the State to publish a data dictionary for data elements that are exchanged and adopt the schemas and namespaces that are provided under the NIEM framework. The State recognizes the importance of a published data dictionary and it is part of the overall data management direction.
- The State will create governance for data management, evaluate compliance with NIEM and share schemas with other states. Creating data governance is part of the planning process that is already under way.
- The State already has achieved a moderate level of NIEM maturity as we have data dictionaries and have developed an overall data management strategy. The State understands that the scope of NIEM applies to specific definitions of data exchange supported by the capabilities of an Import/Export tool. Oregon will employ such a tool that facilitates implementation of the NIEM framework.
- The State already has the capability to participate in XML exchanges.
- The State agrees that the NIEM framework will help reduce its maintenance footprint as it creates re-usable data exchange tools, components and schemas.

Adaptation to the recommendations of Section 1561 of the Affordable Care Act
Core Data. The State is planning to use an enterprise data dictionary for core data and follow NIEM guidelines. This includes a core set of eleven data elements collected from clients during the application process for social service programs such as Medicaid. These data elements are name, date of birth, Social Security number, gender, address, citizenship, immigration status, possible incarceration history, race/ethnicity, household composition and income.

Verification Interfaces. The State is working to procure a commercial solution framework that supports standardized web services for integrated eligibility. The framework will be able to interface with federal, state or other widely available data sources and tools including U.S. Postal Service address standardization Application Programming Interface (API) etc. for information verification.

Business Rules. The State is working to procure a commercial solution framework that includes a rules engine that allows business rules for all programs including SNAP and TANF to be expressed in a consistent, technology-neutral format. These rules will be stored and managed outside of the transactional systems.

Transmission of Enrollment Information. The State is working to procure a commercial solution framework for integrated eligibility that will use HIPAA transaction standards.

Privacy and Security. The State of Oregon uses governance and compliance tools to manage information privacy and security requirements controls and issues. For the Health Insurance Exchange project we will rely on guidance from the following documents: OMB Circular A-130; Appendix III (CMS data use agreement security requirements); FIPS 200 (grant and CMS data use agreement security requirements); NIST 800-53 (grant and CMS data use agreement security requirements); HIPAA Privacy Rule and Security Rule; ACA 1561 Recommendations (Privacy and Security); and ARRA HITECH. The requirements and controls include, but are not limited to: awareness and education (A&E); access control; human resource (State and vendor); systems (application and hosting); physical and environmental security; asset management; incident management; business continuity; and disaster recovery. The Health Insurance Exchange system and associated information assets will meet the privacy and security requirements cited above.

The protection of information assets and the consumer's expectation of privacy are addressed through communications and A&E materials. These are reviewed and enhanced as necessary to help users and system support staff (including contractors and vendors) understand their responsibilities in protecting the information assets. Information privacy and security requirements are essential components in all agreements, including contracts that involve the exchange of information assets and system access.

The foundation of information protection is to limit the collection, use and exposure of information assets. The exchange system will be built upon this foundation.

Security is managed through program management; the security plan includes the following elements: an overview of system security requirements; a description of the corresponding planned or existing security controls; a formal risk assessment; analysis of impacts of changes; and specification of required security controls. This process ensures that existing security and control procedures are not

compromised, support programmers and administrators are given access only to those parts of the system necessary for their work, and that formal agreement and approval for any change is obtained.

Use of x12n HIPAA 834 enrollment and 270/271 eligibility transactions
DHS/OHA has implemented version 4010 of the x12n HIPAA 834 enrollment and 270/271 eligibility transactions. Oregon is in the process of implementing version 5010 by the federally mandated January 1, 2012 compliance date.

Federal Information Processing Standards (FIPS)
The State of Oregon will assess and test a minimum of 184 controls addressing FIPS 200 requirements that will be applied to the information assets and Health Insurance Exchange system. An example of a control and associated requirement would be the "intrusion and incident response" control, in requirement Section 3 of FIPS.

HIPAA
The State of Oregon will assess and test a minimum of 111 controls that address administrative, physical and technical HIPAA Privacy Rule and Security Rule requirements that will be applied to the information assets and exchange system. For example, one control would be "collecting and use the minimum data necessary" in requirement 164.514(d).

Oregon's policy is to adhere to HIPAA guidelines and rules and will continue to employ this policy when implementing new Exchange interfaces. The State will also provide guidance on compliance with HIPAA to potential contractors and vendors during the procurement process.

Security
Collection Limitation. Oregon's information security policies guide the collection of data to meet program needs. The foundation of Oregon's policy follows best practice regarding information protection which limits the collection, use and exposure of information assets. The exchange system will be built following Oregon's policy and information security best practices.

Data Integrity & Quality. Oregon understands the importance of data quality and integrity in safeguarding consumer information. Oregon has mature data resource management and information security functions that promote good data stewardship and data management best practices. Oregon has experience with advanced data practices, including those related to data collection, extraction, transformation, loading, matching and analytics. The approach of implementing a modern configurable framework with advanced data management functionality will allow Oregon to perform sound data and analytic methods to drive decision making for the Exchange.

Openness & Transparency. Oregon has an established Information Security Office (ISO) that administers security policy. A core charter element of the ISO is that the protection of information assets and the consumer's expectation of privacy are addressed through communications and Awareness and Education materials. The Health Insurance Exchange project will develop and disseminate these materials.

Readiness: Accessibility for Individuals with Disabilities
As can be verified by looking at the tasks in the attached work plan, the State is committed to providing accessibility to information technology for persons with disabilities as spelled out in section 508 of the Rehabilitation Act.

- The State does not refuse persons with disabilities participation in services, programs or activities simply because that person has a disability.
- The State does provide programs and services in as integrated setting as possible, unless separate or different measures are necessary to ensure equal opportunity.
- The State operates its programs so that, when viewed in their entirety, they are readily accessible to and usable by individuals with disabilities.
- The States tries to ensure effective communication with individuals with disabilities.
- Where necessary to ensure that communications with individuals with hearing, vision, or speech impairments are as effective as communications with others, the State tries to provide appropriate auxiliary aids.

Oregon understands that "auxiliary aids" include such services or devices as qualified interpreters, assistive listening headsets, television captioning and decoders, telecommunications devices for deaf persons (TDD's), videotext displays, readers, taped texts, Braille materials, and large print materials.

Oregon understands that Titles I, II, III, and IV of the ADA, the Telecommunications Act of 1996, and the Assistive Technology Act Amendments of 1998 require electronic devices be accessible to people with disabilities. Consequently, the State provides accessible technology when necessary to make programs accessible or to insure effective communication in private businesses open to the public.

The State has implemented a number of programs to aid persons with disabilities (e.g. deaf and hard of hearing, vision impaired, seniors, mobility impaired) in accessing state systems and websites. For example, see the State e-Government website: http://www.oregon.gov/accessibility.shtml

Textual Alternative Pages
The State's textual alternative pages display web page content independent of style sheets or mark-up and remove all layout elements so assistive technology can render the page without problems. Content colors can be changed to display content appropriately for those having impaired color vision.

Forms
Electronic forms use tags that can be read by assistive technology.

Multi-media
Web pages do not use multimedia technology and hence are readable by assistive technology.

Tables
State text alternative pages include row and column headers on data tables. For multi-level tables, scope IDs are included. This makes them easier to be interpreted by assistive technologies. Testing for accessibility is included as part of applications testing. DHS/OHA uses tools, such as JAWS, for testing applications for accessibility.

READINESS: SUMMARY OF CONCLUSIONS

The grant announcement for this program asks applicants to assess their readiness to carry out various aspects of Exchange IT development. These topics have been addressed throughout this document and marked with the term "readiness."

In summary, Oregon is prepared to embark on an innovative IT solution supporting a Health Insurance Exchange because of the state's history of innovation in health policy, its commitment to health information technology and its experience with modernizing the eligibility and enrollment for its Medicaid and social services programs. Oregon's legislative leadership in health reform has established a governance structure that will provide guidance and support to creating an innovative, practical and reusable technical solution for creation of an Exchange. A wide range of stakeholders, including the State's health policy leadership, Exchange advisory groups, states interested in Oregon's technical solution and many others are prepared to support this work. The technical architecture and IT standards are well developed, in part because of the Medicaid modernization work that has already taken place and continues. Consumers' needs are also being taken into account to ensure that the result provides a seamless experience for health insurance coverage, no matter a person's income or circumstance.

Oregon looks forward to using its past as a health policy innovator to create an IT solution that can be a model for other states and propel our own Health Insurance Exchange forward. We appreciate the opportunity being offered by OCIIO through this grant.