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Oregon Health Insurance Exchange Corporation (ORHIX) / Cover Oregon (CO) Monthly Quality Status Report

December 2012

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SECTION 1: Introduction

The Oregon Health Insurance Exchange Corporation (ORHIX), now known as Cover Oregon (CO), recognizes the value of an independent, third-party to provide formal quality assurance (QA) services. To meet this need, CO has engaged MAXIMUS to provide the following QA services:

- **Initial Risk Assessment** - identification of initial risks facing CO
- **Quality Management Plan (QMP)** – recommended activities and tasks to address risks
- **Monthly Quality Status Reports** – monthly tracking of progress of managing risks

This report builds upon the initial risks that were identified in the Initial Risk Assessment and prior monthly Quality Status Reports and summarizes any relevant updates to findings, risks, or recommendations.

Brief ORHIX / CO Background

The design and implementation of an insurance exchange is a key part of Oregon's current health reform efforts aimed at improving the health of Oregonians by increasing the quality and availability of medical care, and controlling costs. Once implemented, the Oregon Health Insurance Exchange will be a central marketplace where consumers and small employers can shop for health insurance plans and access federal tax credits to help them pay for coverage.

As required by the Affordable Care Act (ACA), the Exchange will offer a variety of services. Through the Exchange website, Oregonians will be able to easily compare plans, find out if they are eligible for tax credits and other financial assistance, select and enroll for health coverage. They also will be able to shop and enroll by calling a toll-free number and working with community-based navigators and insurance agents.

Since July 2011, the Oregon Health Authority (OHA) has led the design and implementation of the Health Insurance Exchange – Information Technology (HIX-IT) solution, building upon the Oracle products and Enterprise architecture envisioned by the State of Oregon.

SECTION 2: Executive Summary

The overall risk has not changed during the period.

The overall risk level for CO is HIGH (red).

Please note, that while progress was made during the month, the progress was not considered significant enough to lower the overall risk of the whole endeavor. In other words, progress in some areas since last month is offset by the fact that there is one less month until the federally mandated deadlines. Additionally, categories carry different relative weight when assessing the overall risk level of the effort. For example, while 12 out of 16 Quality Rating Categories are medium (yellow) or low (green), critical categories including "Scope", "Schedule", and "Inter-Org Coordination" remain high (red), which drives the overall HIGH (red) risk assessment.

It is important for these findings and recommendations to be viewed in a larger context. CO faces some unique challenges due to the nature of the larger health system transformation within the State of Oregon and Nationally. For example, in order to meet the federal requirement that the Exchange be up and running by January 1, 2014, the system must be completed and ready to accept enrollments by October 2013. This is clearly a very aggressive timeline. And this work must be achieved in an environment of evolving federal requirements and user expectations.

The environment within which CO operates is changing rapidly and involves a number of state and federal government agencies, insurance companies, community organizations and public interest groups. In addition, CO is a relatively small public corporation that is fully dependent on the Oregon Health Authority (OHA) for the initial development of the Health Insurance Exchange - Information Technology (HIX-IT) solution.

As a result of this dynamic and complex situation, it is expected that many of the risk levels evaluated were determined to be high (red).

The organization has made significant progress in a number of areas during the month of December, including:
- CO has carefully reviewed the summary and detailed findings of the previous QA reports and has met with MAXIMUS to discuss the findings in detail.
- CO conducted an intensive briefing into the project for the Oversights groups (Legislative Fiscal Office and Department of Administrative Services) on December 4th and 5th. Each of the specific sections was presented by persons actually doing the work in the section. This approach allowed LFO and DAS to better understand/appreciate the work that is being done and also the challenges that face the project. In addition, by having the various group leaders present their backgrounds as part of their presentation, LFO and DAS could see the quality and depth of expertise that CO has brought to the endeavor. LFO and DAS were highly appreciative of the review and felt more comfort with the project approach, skill sets, progress, and plans that CO has created.

- At the Oversight briefing, CO/OHA and Oversight had an open and frank discussion of the architectural approach and both parties agreed that refinements to the architecture may be warranted to better meet the business needs.OHA and CO will continue the discussions moving forward.
- The HIX IT and CO teams continue to meet and reviewed the HIX-IT Schedule. There was agreement on linking the schedules via major milestones. LFO and DAS requested to see more in this area and CO (David Ford) is to provide another deeper review of the schedule for Oversight in Jan/Feb timeframe.
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- CO's Communications Plan was reviewed by the Consumer Advisory Committee and accepted by the Board in early December.

The following table summarizes the priority QA recommendations, along with the high-level response from CO. Additional details for each of these recommendations, including the underlying findings and risks, are included in Section 4 of the report. Similarly, a more detailed response from CO is included in Section 5 of this report.

Table 1: Summary Quality Standards Scorecard

Quality Rating Category	QA Risk Level	Priority QA Recommendations	CO Risk Level	CO Response
OVERALL HEALTH	**High**	• See below for specific priority recommendations. • Continue to review, update, and track all outstanding quality risks and recommendations. • Continue oversight briefings on a regular basis	**High**	• CO agrees with this risk assessment based on the statement that the endeavor itself is high risk. Much progress is being made and CO expects that to continue.
Business Mission and Goals	**Med**	• CO is creating a Business Operations Plan as a supplement to the Business Plan. This is expected to be completed by early 2013. • The assumptions for Medicaid enrollees through the electronic exchange are fully modeled. More research should be done and the model should be updated with references to source material.	**Low**	• Business Mission and Goals have been articulated. • The detailed business model was completed in October 2012; the Business Operations Plan will be completed in January 2013. • Estimates were based on enrollment projections from OHA and the State Health Access Data Assistance Center (SHADAC), along with reasonable estimates of take up through the exchange based on existing data sources for electronic application use, income of likely enrollees, etc.
Roadmap	**Med**	• The roadmap needs to be further detailed and extended beyond the initial	**Low**	• Significant work was done during December - adding details and extending the

Quality Rating Category	QA Risk Level	Priority QA Recommendations	CO Risk Level	CO Response
		2013 deliverable date. CO Should clearly communicate this information among all groups.		roadmap to include Versions 2, 3, 4 (all slated for dates past October 2013). This work was done in preparation for the LFO briefing, and continued as program details are solidified.
Scope	*High*	• Scope "Lock down" efforts are being conducted this month. • See Attachment E Architectural Simplification. • Continue to validate and update the CO WBS. • See Attachment C Contingency Planning. CO should clearly articulate the planning process and outcomes.	*High*	• The WBS is continuously validated and updated. • CO concurs with findings in Attachment E and is working with OHA/OIS to implement simplified architecture • CO and OHA have agreed to elimination of merge/rebase and combination architecture • CO will continue to manage the risks in Attachment C
Schedule	*High*	• Finalize a single, comprehensive schedule, which contains all work required for the establishment and operation of CO and the Exchange, including HIX-IT. • Integrate use of the Schedule (and underlying WBS) into the day-to-day management and planning of the project. • Identify project dependencies and critical paths. • Begin to Baseline pieces of the schedule and track for variance.	*High*	• CO schedule is complete and updated. • CO's scheduler has collected the other schedules and is integrating them. This will be complete by mid-December. • CO continues to integrate the schedule and WBS into project management and planning. Scope lockdown meetings took place in December. Critical Path work is currently taking place and is expected to be completed by end of January, 2013. • CO is in the process of baselining the schedule.
Budget	*Med*	• Work with OHA to extend the independent financial audit to include the OHA HIX-IT accounting practices. • Request formal, comprehensive documentation of all relevant cost allocations to CO from HIX-IT.	*Low*	• Do not agree with combined audit recommendation; it is not an option per CO's federal grant requirements. • Documentation has been received.
Funding	*Med*	• Work with OHA to develop a process to ensure that funding priorities and goals are	*Low*	• CO and OHA are working together to ensure funding priorities are aligned and can

Quality Rating Category	QA Risk Level	Priority QA Recommendations	CO Risk Level	CO Response
		aligned and well-articulated to CMS, the Board, OHA executive management and LFO.		be clearly articulated. • CO produced rigorous budget projections for 2013-14 for the Level 2 grant application submitted in November.
Board Governance	**Low**	• Continue to work with the Board to maintain the Board Policy Manual, including adequate processes and controls related to potential conflicts of interest.	**Low**	• CO agrees, this is occurring.
Inter-Org Coordination	**High**	• Define clear roles and responsibilities for each major organization involved in CO. • Update formal Interagency Agreements to document clear boundaries and expectations in detail. • See Attachment D, "No Wrong Door" Cooperation.	**Med**	• Interagency requirements and "to-be" processes are a top priority with the leadership of both CO and OHA. • Inter-Government Agreements (IGAs) are in process. This continues to be a top priority. The OHA IGAs will be completed in early March. • CO has begun creation of supporting documentation to develop IGA
Org Management	**Low**	• Finalize the CO organization chart, including detailed roles, responsibilities, expectations, and authorities.	**Low**	• CO organizational charts and job descriptions define roles, responsibilities, expectations, and authorities.
Human Resources	**Med**	• Finalize the Human Resource Management Plan and Staff Job Descriptions. • Continuously evaluate staff skill sets in this fast changing environment for gaps.	**Low**	• Policies and procedures are growing in a normal trajectory for a startup of CO's size. • The draft CO policies and Employee Handbook were sent to DOJ and the Personnel and Compensation Committee in December 2012 for review and comments. Comments were incorporated in January 2013, the revised policies and Handbook will be reviewed by the full Board in January and discussed/ adopted by the Board in February. • This is a low risk area and should be green.
Stakeholder Management	**Low**	• Finalize a comprehensive CO Stakeholder Engagement Plan.	**Low**	• This is a section the communication plan which was finalized in November.

Quality Rating Category	QA Risk Level	Priority QA Recommendations	CO Risk Level	CO Response
				• CO continues engage in robust stakeholder engagement work.
Commun-icat ion	*Low*	• Continue development of a comprehensive communication process for all external stakeholders.	*Low*	• CO agrees with this finding.
Project Management	*Med*	• See attachment B Detailed reporting and tracking. • The Project Management foundational documents are awaiting a formal QC review. An agreement between CO and MAXIMUS is awaiting MAXIMUS legal review.	*Med*	• CO has actively worked to address the findings and recommendations by ensuring that a more comprehensive estimation process has been put into place. CO measures progress on a daily, weekly and monthly basis through a series of regular meetings • CO concurs with the QC finding. • CO finalized the QC contract in the beginning of January, 2013.
Contract Management	*Med*	• Clearly tie contractor work to the project WBS and schedule. Track progress (% complete) accordingly.	*Med*	• The schedule management process outlines the methods by which CO tracks percent complete progress for each task.
Product Content	*High*	• User Interface work by Deloitte is scheduled to be completed in mid-spring. This timeline is problematic. . • See Attachment A, C, and D.	*High*	• User Interface development is proceeding and includes several sets of user testing along the way to ensure that the end product is user-friendly and meets CO requirements.
Testing	*Med*	• Create a comprehensive Test Plan that outlines the strategy for iteration and UAT & IV&V testing to be conducted by CO • Confirm that a dedicated test environment will be available for CO testing.	*Med*	• Cover Oregon has a test plan and strategy, which will be updated after the early December usability testing is completed. The project environment plan includes an integration environment for iteration testing that will subsequently be used for UAT. The URL for this environment was released in early December, • Oracle is currently testing the new test environment in preparation for release to the development and BA teams and CO.

Quality Rating Category	QA Risk Level	Priority QA Recommendations	CO Risk Level	CO Response

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Table 2: QA Risk Level Tracking

Quality Rating Category	June '12	July '12	Aug '12	Sept '12	Oct '12	Nov '12	Dec '12	Jan '13	Feb '13
OVERALL HEALTH	H	H	H	H	H	H	H		
Business Mission and Goals	H	H	H	M	M	M	M		
Roadmap	H	H	M	M	M	M	M		
Scope	H	H	H	H	H	H	H		
Schedule	H	H	H	H	H	H	H		
Budget	M	M	M	M	M	M	M		
Funding	M	M	M	M	M	M	M		
Board Governance	M	M	M	M	L	L	L		
Inter-Org Coordination	H	H	H	H	H	H	H		
Organizational Management	M	M	M	M	M	L	L		
Human Resources	M	M	M	M	M	M	M		
Stakeholder Management	M	M	L	L	L	L	L		
Communication	M	M	M	M	M	L	L		
Project Management	H	H	H	M	M	M	M		
Contract Management	M	M	M	M	M	M	M		
Product Content	M	H	H	H	H	H	H		
Testing	H	H	H	M	M	M	M		

SECTION 3: Methodology and Approach

Risk Assessment Methodology

The MAXIMUS risk assessment methodology began with the identification and analysis of initial risks that face the CO project from a number of different perspectives. This work resulted in the Initial Risk Assessment, and was updated by subsequent Monthly Quality Status Reports. These risk reports included a variety of confidential interviews with CO staff and Board members, as well as other State and HIX-IT project stakeholders. On an ongoing basis, MAXIMUS will deliver monthly quality status reports that will continue to track progress on risk transference, remediation or acceptance by Cover Oregon. These monthly reports may also identify new risks or further refine the understanding of existing risks.

In developing the monthly quality status report, the MAXIMUS Team attended project meetings, conducted interviews, and reviewed various CO artifacts, to assess how risks are being mitigated. The information gained during these activities was used to update the specific findings, risks, and recommendations originally presented in the Initial Risk Assessment and subsequent monthly quality status reports.

This report represents the CO Monthly Quality Status Report for the month of December 2012.

Section 4: Updated Risk Assessment Findings, Risks, and Recommendations

The detailed findings, risks, and recommendations are presented below. Findings are limited to specific information identified during the period. Risks and Recommendations have been updated, as appropriate. At the client's request, unique numbering has been introduced for both risks and recommendations, to assist in tracking. For example, risks in the Business Mission and Goals section of the report can be identified as Risk-BMG-1, Risk-BMG-2, etc. Recommendations can be similarly, uniquely identified. The integrity of the numbering will be preserved during future reports.

Table 3: Detailed Quality Standards Scorecard

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
Business Mission and Goals (BMG)	*Med*	*Med*	
			Findings During Period: • QA understands that CO is creating a Business Operations Plan as a supplement to the Business Plan. This is expected to be completed in January 2013. • The assumptions for Medicaid enrollees through the electronic exchange are largely not fully modeled. More research should be done and the business model should be updated with references to source material. • CO prepared for a comprehensive LFO deep dive expected to take place in early December. This deep dive is expected to review all the program areas and technology for the exchange. **Risks:** 1. Without a sufficiently detailed Business Plan and analysis CO may set the wrong expectations with the Board and various stakeholders. 2. Without a detailed Business Plan and enrollee analysis, Cover Oregon may not have sufficiently robust model upon which to define the financial sustainability of the Exchange. **Recommendations:** 1. Complete 2. Define the table of contents for an updated Business Operations Plan and gain concurrence of relevant parties. An outline of the Business Operations Plan was created.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			3. Utilize updated business market data, potentially from Wakely Group and other states for Medicaid enrollee projections. Use this to enhance the Business Plan document with more detailed analysis. 4. Update the detailed business model for the Exchange. Document in detail all relevant assumptions, risks, constraints and contingency plans. Update in detail, all revenue projections with justification of why they are valid. Update, in detail all costs with justification of their validity. This information should be used to model and determine long-term sustainability in a variety of circumstances. This information should be appended to the updated Business Plan. This plan should include Medicaid "take rates" for the electronic exchange, as well as references to source materials. 5. Clearly identify the business roadmap and ensure that it is connected with the business modeling and Business Plan. 6. Closed 7. Periodically update the business model and Business Plan as more information comes available and assumptions are validated.
Roadmap (RM)	Med	Med	
			Findings During Period: • Significant work was done during the period on adding details and extending the roadmap beyond the initial 2013 delivery date, in anticipation of the LFO briefing which was conducted on 12/4 & 12/5. • CMS has conditionally certified the Oregon Exchange. **Risks:** 1. Without a clear, comprehensive, and authoritative description of the Exchange roadmap, the project will likely continue to have incomplete data for future budgeting and unclear project priorities. 2. Closed. 3. Closed. 4. Closed. 5. Without a roadmap projection beyond 2013 will be difficult to do development budget projections for future grants and operations and development.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			Recommendations: 1. Closed. 2. Develop comprehensive diagrams to aid in the communications of key ideas to various stake holders. The initial one-page, high-level CO scope diagram that was developed and recently presented to the Board of Directors was a great start. <additional detail available in July QA report> 3. The process of defining and prioritizing the scope should be identified in the Requirements Management Plan. This plan should be updated, approved and implemented within the project. 4. Create an integrated set of roadmap documents to communicate with the HIX-IT project, CO staff, CO Board of Directors, and other stakeholders. 5. Closed 6. The process for developing the roadmap(s) should be documented so that it can be evaluated by stakeholders prior to getting deep into the process. Also, all underlying assumptions should be articulated in the process so they can be agreed upon by executive management. 7. Finalize the functional roadmap, including a high-level schedule of required functionality, and prioritized features. Clearly communicate requirements and due dates with HIX-IT. 8. The roadmap should be continually updated. For example, CO should define the second release of the exchange. The second release should identify high level features and timeline. 9. Continue comprehensive oversight briefings on a regular basis.
Scope (SCP)	*High*	*High*	
			Findings During Period: • Scope "lock down" is beginning this month. The desire by OHA and CO is to do a detailed review and inventory of outstanding decisions, questions, issues that affect the finalization of scope. In addition this process will identify any non-priority issues that can be easily deferred. This effort is intended to be a basis for additional scope deferment efforts that are to be conducted in January. • See Attachment C Contingency Planning. CO has not established trigger points for

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			program review and scope risk assessment. • The Work Breakdown Structure (WBS) and project schedule is being updated and maintained on an ongoing basis. • CO continues to refine the WBS for its programs. • Continued progress was made during the month on the CO WBS. A variety of significant gaps still exist in the HIX-IT WBS that are dependencies for CO and vice versa. • **Risks:** 1. Without a clear understanding of the HIX-IT project WBS, including the work elements specifically assigned to CO, there is a risk that the project will not be completed on schedule. 2. Without a clearly understood and agreed-upon non-HIX-IT project WBS, CO will continue to primarily focus on immediate work, without the benefit of a longer term plan or sense of progress. Without these as a basis, accurate planning and progress reporting is impossible. 3. See Attachment C. Without clear trigger points for reviewing the program progress, resources, and outstanding scope against a realistic schedule CO executive management may be surprised at the end of the development cycle. 4. Without day-to-day use of the CO schedule (and underlying WBS), these documents will not be as useful as possible. **Recommendations:** 1. Closed. 2. Closed. 3. Closed. 4. Define and implement clear project management processes and controls for maintaining the CO WBS, including "rolling wave" elaboration of near-term work. See the Project Management Section of this report for more details on this topic. 5. Combined with IOC Recommendation #6. 6. Clearly define all status and oversight reporting requirements and expectations, including those from Department of Administrative Services (DAS), Legislative Fiscal Office (LFO),

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			and Joint Committee on Legislative Audits and Information Management and Technology (JCLAIMT). Verify that all HIX-IT fiscal budget note items are adequately addressed. Define an integrated, meaningful dashboard report, with appropriate drill-down functionality. 7. Based on the WBS, develop clear duties and assignments for all CO staff, including all current and anticipated contactors. 8. Consider independent QC of the WBS. 9. Develop and communicate the contingency plans to QA, see Attachment C. 10. Continue to validate and update the CO WBS. For example, ensure that all PeopleSoft work is identified. 11. Continue to work with HIX-IT, OIS Shared Services, Deloitte, to align with their respective WBS documents. 12. Integrate use of the Schedule (and underlying WBS) into the day-to-day management and planning of the project. This will ensure that these documents are useful and accurate. 13. Closed.
Schedule (SCH)	High	High	
			Findings During Period: • The HIX IT and CO teams continue to meet and review the HIX-IT Schedule. There was agreement on how the schedules can be linked. The schedulers are linking their schedules via milestones. This initial milestone linking is a good start. However, the level of detail that will be required to ensure appropriate coordination remains to be seen. The schedulers should have a clear understanding on the methodology each uses to update their schedules. • The Work Breakdown Structure (WBS) and project schedule are being updated and maintained on an ongoing basis. Teams meet weekly to provide updates to the scheduler, however, it is not clear that these documents are being consistently used to manage project work on a day-to-day basis. • Continued progress was made during the month on the CO schedule. A variety of significant gaps still exist in the HIX-IT WBS that are dependencies for CO and vice versa. • Both the HIX-IT and the CO schedules lack baselines for variance measurements. QA is requesting that the schedule be baselined for all tasks over the next 30 days. • The CO User Interface work and carrier JADs are considered key dependencies for the

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			HIX-IT development scheduling.

- The HIX-IT, OIS Shared services, and CO schedules do not have a common methodology for tracking and identifying dependencies, critical paths, work completion, variance, resourcing, etc. The teams are meeting and working through these issues.
- The lack of reliable estimating by HIX-IT, undiscovered development issues and incomplete requirements by CO will result in continued surprises to CO throughout the project.
- HIX-IT has a significant dependency on unstaffed components of the OIS organization, i.e., shared services. In addition, HIX-IT has a dependency on the Modernization project. The impact of these dependencies is an open issue and will affect the delivery to CO.
- Reviews of the HIX-IT Schedule for CO are being conducted on a regular basis.

Risks:

1. Without a clear understanding of the HIX-IT project schedule, including the activities and tasks specifically assigned to CO, there is a risk that the project will not be completed on schedule.
2. Without a clearly understood and agreed-upon non-HIX-IT project schedule, ORHIX will continue to primarily focus on immediate work, without the benefit of a longer term plan or sense of progress. Without these as a basis, accurate planning and progress reporting is impossible.
3. While clearly unintentional, the potential overall and/or dependencies between the inter-related projects and initiatives may cause significant duplication of effort and/or rework. Decisions may be made in one area without proper consideration of the implications to other efforts. Effort may be duplicated or require unplanned rework.
4. Each of these risks, if not addressed, will likely have an increasing impact on staff morale and may result in increased turnover.
5. Without clearly defined dates and features formally provided by Cover Oregon to HIX-IT it will be impossible for HIX-IT to define a complete development schedule to present to Cover Oregon. Relying on the iterative or "progressive elaboration" approach without a comprehensive estimation process in OHA shared services and the Modernization project, will most likely result in continued surprises and missed delivery dates.
6. Without day-to-day use of the CO schedule (and underlying WBS), these documents will not be as useful as possible.

Quality Rating Category	*Nov 2012*	*Dec 2012*	*Risk Assessment Finding, Risks, and Recommendations*
			Recommendations: 1. Develop a single, comprehensive, authoritative and baselined schedule for all non-HIX-IT CO work, using the WBS described in Scope Section of this report. This schedule must include *all required activities and tasks* (at least at a high-level), as well as all durations, resources, and dependencies, required for the successful implementation and operation of CO and the Exchange. Clearly define assumptions, dependencies and constraints. It should also include references (links) to other schedules, including HIX-IT, as well as other relevant DHA, OHA, or DCBS Initiatives. The Schedulers are beginning to link the schedules on common milestones present in the schedules. 2. Confirm OIS intention to develop (with significant CO input) a single, comprehensive, authoritative schedule for the HIX-IT project. This schedule must include *all required activities and tasks* (at least at a high-level), as well as all durations, resources, assumptions and dependencies, required for the successful design and implementation of the HIX-IT solution. It should also include dependencies (links) to other schedules, including relevant OIS Enterprise Initiatives, as well as CO (see below). Any specific activities and tasks that are required by the HIX-IT project to be completed by CO, including requirement definition and testing, must be clearly and explicitly scheduled. 3. Closed. 4. Define and implement common project management processes and controls for maintaining the schedule across OHA and CO, including "rolling wave" elaboration of near-term activities, baselining, variance tracking, resource loading and common reporting of project progress and status. Ensure that all the schedulers are using a common methodology for estimating work, tracking progress and variance, identifying critical path and dependencies in the schedules. See the Project Management Section of this report for more details on this topic. 5. Closed. 6. CO should formally define their expectations to HIX-IT with respect to features and timeframes for product delivery. This formal process will allow HIX-IT to develop a delivery schedule that can be presented back to Cover Oregon for review and analysis. 7. Given the difficulty in estimating the development work across the shared services and other projects within OHA, CO should embed sufficient slack in its schedule (on the order of 30+ percent). CO should continue to monitor the IT delivery deviations including the completion of use cases, testing platforms, standing up of environments, on boarding staff, and product delivery. These deviations should be reported to CO Executive staff in the

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			weekly or monthly reports by CO CIO. As OHA OIS shared services and HIX-IT improves their ability to estimate dates and level of effort CO can begin to reduce the slack in its schedule. 8. Consider independent QC of the Schedule. 9. Closed 10. Begin to Baseline pieces of the schedule and track for variance. 11. Consider tracking Earned Value metrics. 12. Integrate use of the Schedule (and underlying WBS) into the day-to-day management and planning of the project. This will ensure that these documents are useful and accurate. 13. Formally baseline the schedule, including CO, HIX-IT, Deloitte, and shared services.
Budget (BGT)	*Med*	*Med*	
			Findings During Period: • Cover Oregon and HIX-IT continue to have productive meetings in regards to the budget modeling methodology. • The level 2 grant was submitted to CMS the budget through 2014 is based on this approval. *Risks:* 1. Closed. 2. Lack of full transparent accounting practices and spending by OHA MAX program will continue to cause issues between CO and OHA. This will result in increased tensions as more money is spent and deadlines near. 3. The lack of fully elaborated and integrated and baselined WBS and schedule raises the risk that the project scope, schedule, and therefore costs are not clearly understood. As a result, the budget is at risk of being inaccurate. *Recommendations*: 1. Document and implement a budgeting process for CO. This process should include the

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			tracking of assumptions and dependencies. 2. Update the budget projections for CO. Ensure the Budget projections are aligned with the roadmap items that will be established. 3. CO should work with OHA to jointly review cost allocation methods, estimates of future expenditures, and associated financial controls. 4. CO should request OHA to extend the independent financial audit to include the HIX-IT accounting practices and Grant reporting. This will give the Board a clear and complete picture of the Health Insurance Exchange financial operations in the State of Oregon. CO should make the transfer of level 2 funding to OHA contingent upon standard auditing practices and transparency be employed by OHA OIS. 5. Request formal, comprehensive documentation of all relevant cost allocations by OHA to CO, including indirect overhead and shared service costs. These items should be reviewed at regularly scheduled monthly budget meetings. 6. Ensure that sufficient contingency is included in the budget. Clearly document contingency amount and justification.
Funding (FND)	*Med*	*Med*	
			Findings During Period: • CO has submitted the Level 2 Establishment Grant request. This grant request includes all funding through December 31, 2014, at which time CO must be self-sustaining. ***Risks:*** 1. Closed. 2. Closed. 3. Lack of a concerted and fully transparent grant financial reporting between CO and HIX-IT may cause confusion among the stakeholders and oversight entities. 4. Closed 5. If sufficient funding is not included in the Level 2 Establishment Grant request, then there may be a serious shortfall prior to CO self-sufficiency. 6. The lack of fully elaborated and integrated WBS and schedule raises the risk that the project scope, schedule, and therefore costs are not clearly understood. As a result, the funding requests are at risk of being insufficient.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			Recommendations: 1. Closed. 2. Work with OHA to develop a process to ensure that funding priorities and goals are aligned and well-articulated to CMS, the Board, OHA executive management and LFO. 3. Closed. 4. CO will need to work closely with OHA budget personnel to ensure the OHA Policy Option Package and increased spending limitation reflects HIX IT needs with respect to continued development, operations and maintenance. 5. Ensure that all required funding is included in the Level 2 Establishment Grant request, including any HIX-IT M&O and contingency costs, as appropriate. 6. Closed. 7. Ensure that sufficient contingency is included in all funding requests. Clearly document contingency amount and justification.
Board Governance (BG)	Low	Low	
			Findings During Period: • The CO Board meets on a regular basis and receives updates from Rocky and his staff on a variety of topics • The Board Policy Manual has been updated. Another round of updates is expected to be completed by Jan 2013. **Risks:** 1. Closed. 2. Closed. 3. Closed. **Recommendations:** 1. Continue to work with the Board to maintain the Board Policy Manual. Review and ensure that clear roles and responsibilities are established, in accordance with the Carver Model. Review and ensure there are adequate processes and controls related to potential conflicts of interest. 2. Closed. 3. Closed.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
Inter-Org Coordination (IOC)	High	High	
			Findings During Period: • Interagency requirements definition and "to-be" processes require additional definition. See attachment D. • There has been progress on establishing the recommended levels of Inter-Organization Coordination. • CO and HIX-IT/MAX meet every week in the Technology Management Meeting Mondays at 11 AM. Attending are members of the CO Executive Team, including the Executive Director, CIO, COO and Program Management, the HIX-IT project manager, Oracle Project Managers, and the MAX Director. On the agenda are topics that cover inter-project issues across the OHA enterprise that affect HIX-IT. • The HIX-IT software application is integrally tied to the OHA technical infrastructure. **Risks:** 1. Without a professional and collegiate working relationship and full transparency between agencies at the highest executive level, conflicts and communication issues will continue and likely worsen. 2. Without close cooperation, decisions made without appropriate analysis of the impact on CO. 3. Without more detailed IGA's in place, clear delineation of roles and responsibilities may become problematic in the future. 4. Detailed interagency requirements and "to-be" process definition are required. See attachment D. **Recommendations:** 1. CO should lead the effort to clearly define roles and responsibilities for each of the major organizations involved in CO, including both the HIX-IT project and ongoing operations. IGAs should be put in place to clearly identify the working relationships, boundaries, expectations and governance for the development and the operation of the Exchange. 2. CO should lead the effort to clearly document, approve and implement the governance process between CO and HIX-IT. This document should include a clearly defined set of tactical and strategic governing meetings, including scope, intention, and membership. Governance should include immediate project work, as well as ongoing operational

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			responsibilities. CO should enlist the assistance of the LFO as required. 3. Closed. 4. CO should request from the OHA CIO a clear definition of all related IT projects, including scope, schedule, and dependencies. 5. CO should create a list of all IGAs that are and will be established. This list should identify/track any inter-agency agreements and/or decisions, including those related to the communication/outreach, processing of paper eligibility applications, and call centers. 6. Establish formal IGAs with each of the organizations and/or projects in the Interagency Agreement Plan so that clear boundaries and expectations are established. Projects include the Department of Human Services Modernization (DHSM) Program, including Initial Win (IW), Master Data Management (MDM), Eligibility Automation (EA), and the Consolidated Automation Project (CAP). Other related efforts include a variety of OIS enterprise infrastructure / enterprise initiatives, including security and environment management, as well as Community Care Organizations (CCO) support efforts. <see Initial Risk Assessment for recommended MOU elements> 7. Closed. 8. Communicate the appropriate inter-agency agreements and processes to the Board and staff. 9. See attachment D.
Organizational Management (OM)	Low	Low	
			Findings During Period: • CO has a current organization chart and job descriptions for each staff member who reports to the Executive Team. However, job duties are continuing to evolve. • Overall, the Executive Management Team is working well together. **Risks:** 1. If not addressed, the unclear and continually evolving, roles and responsibilities of the CO executive management team will cause challenges with internal project communication and staff coordination. This will result in duplication of efforts and inefficiencies across the entire operation. 2. Combined with OM Risk #1. 3. Limited startup experience may affect the ability of the organization to execute its mission as effectively as possible. This may result in missed opportunities for leadership within the State,

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			and gaps in the execution of the Business Plan. 4. Each of these risks, if not addressed, will likely have an increasing impact on staff morale and may result in increased turnover. **Recommendations:** 1. As the CO Roadmap, WBS and Schedule are completed; Executive Management should clearly communicate the roadmap and internal organizational plan to the staff. 2. Identify key internal operational processes and assign these processes to the specific executive management for development. These processes should be developed using process flows, approved and implemented and placed under change control so the staff and QA can clearly understand how the organization is operating. Clearly document all related processes, policies, and procedures. 3. Continue to refine and update the CO organizational chart, including detailed roles, responsibilities, expectations, and authorities. 4. Consider additional entrepreneurial resources to assist the CO executive management team in moving toward a more entrepreneurial operating model. 5. Closed. 6. Closed.
Human Resources (HR)	Med	Med	
			Findings During Period: • CO is in the process of finalizing the Exchange Resource Management Plan. • All current job descriptions for CO staff have been completed and are under internal review. • CO should continually review staff skill set to the task at hand. In a fast paced environment skills gap can cause significant risk to the project. **Risks:** 1. The dynamic nature and fast organizational growth of CO may create significant staff stress and frustration. Communication and HR support systems will be taxed. 2. Staff with gaps in their skill sets can create schedule delays, rework and/or incorrect planning and execution for the organization. 3. Closed. 4. The lack of fully elaborated and integrated WBS and schedule raises the risk that the project

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			scope, schedule, and therefore resource requirements are not clearly understood. As a result, the staffing plan is at risk of being inaccurate. **Recommendations:** 1. Continue to focus on defining and implementing the required HR support processes. Finalize the CO Human Resource Management Handbook. Complete job descriptions for all filled and anticipated staff positions. 2. Closed. 3. Continue to support team building and informal support structures for staff. 4. Complete, publish, gain approval of, and implement a comprehensive CO Resource Management Plan that includes a required skills matrix. 5. Inventory the skills of the existing staff and perform a gap analysis to the required skills of the organization. The gaps should then be prioritized and either staff should be augmented with consultants, trained or new employees should be sought out with the proper skill sets. CO should continually evaluate employees skills against the tasks they have been given. Areas where there are gaps should be identified and mitigated quickly. 6. Implement formal HR Policies and procedures. 7. Ensure that sufficient contingency is included in the staffing plan. Clearly document contingency amount and justification.
Stakeholder Management (SM)	Low	Low	
			Findings During Period: • Cover Oregon has engaged in multiple stakeholder outreach and communication efforts throughout the month. • Cover Oregon has continued Carrier JAD sessions this month. These JAD sessions are to solicit information to develop a common interface and processes for the carriers to submit their plan information electronically to the Exchange, SHOP quoting, member management (enrollment, changes, disenrollment, and reconciliation), provider search and financial processes (including reconciliation). **Risks:** 1. Lack of proactive communication with Exchange stakeholders may limit early participation

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			and/or public support. **Recommendations:** 1. Complete, publish, gain approval of, and implement a comprehensive CO Stakeholder Engagement Plan. 2. Develop scenarios to clearly communicate the benefits of participating in the Exchange. 3. Continue pro-active outreach and stakeholder communication efforts.
Communications (COMM)	*Low*	*Low*	
			Findings During Period: • CO contracted with Sandstrom Partners to develop a company communications plan. • Metropolitan Group has also been engaged to support this effort. • The Communication Plan was reviewed by the Consumer Advisory Committee and accepted by the Board. **Risks:** 1. If the Exchange does not communicate its functions in a consistent manner then confusion and frustration may result for entities that need to oversee, interface with, purchase or supply services to the exchange. 2. If the Exchange does not communicate its functions in a consistent manner then CO's management credibility may suffer. **Recommendations:** 1. Closed. 2. The internal marketing function of CO should work with the IT, SME's and executive management to identify areas where specialized high level communications need to take place. The Marketing organization can and should utilize the information that should have been produced from the work identified in the Roadmap Section of this report to begin to articulate the functionality of the exchange. 3. As described in the Roadmap Section of this report, comprehensive Exchange diagrams should be developed to aid in the communications of key ideas to various stake holders. 4. The Marketing organization should establish consistent messaging for the organization that reflects the roadmap of the Exchange.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			5. Design and implement a specific external marketing / education program, including the clear purpose and benefits of participation in the Exchange. 6. Consider independent QC of the final Sandstrom deliverable.
Project Management (PM)	*Med*	*Med*	
			Findings During Period: • Work is continuing on a variety of "foundational" PM documents. • Project tracking and reporting findings are included as Attachment B. • Monthly CO status reporting is being tied to tasks in the CO schedule. • The Project Management foundational documents are awaiting formal QC review. An agreement between CO and Maximus for QC services is under development. **Risks:** 1. Without a full set of "foundational" project processes and controls, the project will likely suffer from ad hoc and inconsistent execution of the project work. This will also adversely affect the quality of CO outcomes, as well as staff morale and turnover. 2. Closed. 3. Without all of these foundational documents being clearly completed, approved, and enforced by executive management they will not be institutionalized. 4. Combined with PM Risk #1. 5. Without a clear set of metrics from which to track and report progress to the executive management of CO, HIX-IT, the Board, and LFO COs project management will continue to react to requests for a variety of status information. 6. Closed. 7. Closed. 8. Project tracking and reporting risks are included as Attachment B. **Recommendations:** 1. Closed. 2. Finalize and implement a full set of "foundational" operational documents, including human resource management, contract management, grant administration, CO governance, staffing plan, stakeholder communications, and accounting management plans.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			3. Closed. 4. Closed. 5. Finalize and implement a comprehensive change control process for all of these foundational documents, as well as the WBS and schedule, as described in the Scope and Schedule Sections of this report, respectively. Include guidelines regarding "rolling wave" elaboration of near-term activities. Coordinate all change control processes with the Project Management Office (PMO). All documents should be placed under formal change control and be available in the Dropbox. 6. The Dropbox should be set-up on a manner that aligns with the WBS so that documents can be easily located. A process for document versioning should be evident. 7. Closed. 8. Finalize and implement common guidelines for reporting progress, including % complete. Consider implementation a common earned value management (EVM) approach that can be articulated jointly for both the HIX-IT project and CO schedules. 9. Closed. 10. Closed. 11. Project tracking and reporting recommendations are included as Attachment B. 12. Consider independent QC review of "foundational" PM documents, including relevant HIX-IT foundational documents.
Contract Management (CM)	Med	Med	
			Findings During Period: • CO is currently updating the contract policy and procedures. This work is scheduled to be completed in December. • CO is maintaining a contractor invoice tracking spreadsheet. • Progress has been made to tie some contactor work to specific deliverables. However, contractor work is not clearly tracked against the project WBS or schedule. **Risks:** 1. Agreements that allow contractor's to bill for hours worked, instead of fixed priced payments for satisfactory completion of specific deliverables, leave the onus on CO to verify that the hours were worked and sufficient value was created by the contractors, according to their individual agreements. It may also be difficult to prove or justify the commensurate expenditures.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			2. Without clear contractor procurement and management plans, as well as documented contractor deliverable expectations and deliverable-based payments, CO may have difficulty extracting the expected tangible value from these contractors. This may also lead to the inefficient use of contractor staff and the associated Federal funds. 3. Without a clear tie between contractor work and the project WBS or schedule, effective management of contractor effort and billings will be difficult. ***Recommendations*:** 1. Complete a thorough review of all existing contracts. Document type of agreement, term, cost per hour, and deliverables. 2. Conduct an independent assessment of all contractor activities and proposed deliverables. Identify opportunities to convert contractor payment method to state approval of specific contractor fixed-priced deliverables. Renegotiate agreements, as appropriate. 3. Closed. 4. Define specific roles and responsibilities for contractors. Clearly assign work, as defined in the WBS and schedule, to specific contractor staff. Use this information to update the CO staffing plan, as appropriate. 5. Closed. 6. Closed. 7. Develop transition plans to move contractor positions to CO employees. 8. Clearly tie contractor work to the project WBS or schedule. Track progress (% complete) accordingly.
Product Content (PC)	*High*	*High*	
			Findings During Period: • CO is currently developing a Scope Management process - the expected release of this document is unknown at this point. • CO has defined a scope checkpoint process. Scope is planned to be fully locked down by 2/15/13. • The current Identity and Access Management (IAM aka. IDM), Single Sign On (SSO) and Role Based Access (RBAC) strategy is incomplete. OHA OIS has begun to have security workshops that review security requirements between the MAX and the HIX-IT Projects. These workshops are expected to be completed by

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			the end of 2012. The current IDM strategy is outlined in Attachment A. • Carrier JADS are expected to be completed by the end of 2012. • The User Interface work being conducted by Deloitte is scheduled to be completed in the mid-spring of 2013.These requirements are dependencies for the HIX-IT schedule development and will likely negatively impact the overall schedule. *Risks:* 1. Closed. 2. Closed. 3. The shared services components (Security, MDM) will be implemented later in the process, potentially resulting in significant rework. In addition, process flows may need to change and or expected functionality may not be available when shared services models are over laid on the existing builds. 4. Managing and matching docs in workflow processes will affect system design, customer expectations and HIX staffing requirements. See Attachment D for workflow-related, "no wrong door" risks. 5. Obtaining federally required signatures on documents may be a burden for the customer, system and customer service organization. 6. Closed. 7. Closed. 8. Informality in the use of BPM or UML will result in varying degrees of process flow quality. 9. Closed. 10. Closed. 11. Please see Attachment A for specific, security-related risks. 12. Please see Attachment C for contingency planning risks 13. Please see Attachment D for workflow-related, "no wrong door" risks. *Recommendations*: 1. Closed. 2. Implement a product validation procedure and requirements change management process to validate the requirements submitted for development. Implement a

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
			change process to correct any defects of requirements.
			3. Define the process for integrating the requirements from CO into the shared services components of the development teams early in the requirements process.
			4. Identify all areas where documents are expected to be uploaded, faxed or mailed and review the validity for these documents in the workflow process. Ensure that the system architecture has a document management strategy. Ensure that the documents requirements are clearly identified in the current JAD session, Data requirements, use cases etc. An inventory of all document expectations should be identified to assess the magnitude of the effort. See Attachment D.
			5. Clearly identify where signatures are required for client documentation. Validate if they are required by consulting DOJ, IRS, Carriers, etc.
			6. CO should have a formal review the existing OUM process (including shared services) as it is implemented (tailored) for the Exchange project. This OIS process should be clearly documented, approved, implemented, and placed under change control. The process, if not controlled, will begin to drift as project managers move their attention to other areas/processes of the project that need to be "stood up". This will also enable QA to monitor the process as it continuously improves.
			7. Closed.
			8. A complete and accurate record of all iteration use case work packages and Oracle functional and technical design documents and Corporation testing documents should be organized and kept as a complete package in the Dropbox. Understanding the amount of customization of the current implementation will be critical for CO as future needs are established.
			9. CO should require all BA work to be done using CMS standards whenever possible. This will help ensure that 1.) the work done by all the BA's is completed with a common language. 2.) this common language can be utilized to communicate more effectively with trained developers and 3.) the products can be archived and reused at a later date potentially with different BA's and Developers.
			10. Closed.
			11. Please see Attachment A for specific, security-related recommendations.
			12. Please see Attachment C for contingency planning recommendations.
			13. Please see Attachment D for workflow-related, "no wrong door" recommendations.

Quality Rating Category	Nov 2012	Dec 2012	Risk Assessment Finding, Risks, and Recommendations
Testing (TST)	Med	Med	

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Findings During Period:
- The first draft of the CO test strategy is currently in internal review, is currently due to be completed in January 2013.
- The CO scheduler and testing manager has developed and initial timeline for UAT.
- HIX-IT has planned to provide a UAT testing environment that will be used solely by CO. A schedule for implementation of this environment needs to be identified by CO.
- The first draft of the CO test strategy has been written and is in internal CO review.
- CO should consider having Independent Verification and Validation (IV&V) testing completed on the system prior to training.

Risks:
1. Current iterations are being accepted without a formal and methodical review of the product. This may result in defects being found and fixed at a later point as potential issues are found.
2. Lack of a dedicated test environment will limit the exposure of the SME's with the product that is being developed. It is very important that SME's have ample time to play with the design so they may be able to refine the design as necessary. The SME's should also be encouraged to use non-industry personnel, i.e., public users to get feedback on the public facing components of the exchange. Lack of a dedicated test environment will require significant coordination with the IT testers and a reduced amount of time to access the system.

Recommendations:
1. Create a comprehensive test plan that outlines the strategy for iteration and UAT testing to be conducted by CO. Note: this testing should include security requirements.
2. Confirm that a dedicated test environment will be available for CO testing, such that they have sufficient time to review the design of the system as it is being built, allow demonstrations and focus groups to view the design, train, testing, etc.
3. Ensure that usability testing using typical users of the system is included in the testing of the Exchange on-line system.
4. Consider Independent Verification & Validation (IV&V) testing of the final application, prior to production usage.

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SECTION 5: CO Management Response

The following table provides space for CO management response and/or state action plans for each of the Quality Standard sections areas or findings described in Section 4 of this report.

Quality Standard Section	CO Management Response and/or Action Plan
Overall Health	
Business Mission and Goals	
Roadmap	Significant work was done during to add detail and extend the work identified in the roadmap to include Exchange Versions slated for dates after December 2013. This work was initially done in preparation for the LFO briefing, and has continued as program details are solidified.
Scope	The Exchange Work Breakdown Structure is continuously validated and updated. CO concurs with findings in Attachment E and is working with OHA/OIS to implement simplified architecture. Additionally, Cover Oregon and OHA have agreed not to combine architecture, eliminating the need for merge/rebase. CO will continue to manage the risks in Attachment C by conducting contingency planning, including identifying alternative methods for conducting required services and providing required products, and reducing scope to focus on 2013 requirements.
Schedule	
Budget	
Funding	
Board Governance	
Inter-Org Coordination	
Organizational Management	
Human Resources	
Stakeholder Management	

Commun-ications	
Project Management	
Contract Management	
Product Content	
Testing	

SECTION 6: Risk Rating Criteria

The following risk rating criteria were used to evaluate the probability or likelihood of the risk occurring and the impact of the risk if it were to materialize.

Probability

H	Probable/eminent Occurrence	If the risk is probable or imminent then it should be rated as High.
M	Possible/likely Occurrence	If the risk is possible or likely to occur then it should be rated as Medium.
L	Possible/unlikely Occurrence	If the risk is possible, but unlikely to occur then it should be rated as Low.

Impact

H	High Impact	If the risk is considered to significantly affect the schedule, cost, security, project organization or significantly affect the success of meeting the project goals it should be rated as High Impact.
M	Medium Impact	If the risk is considered to somewhat affect the schedule, cost, security, project organization or generally affect the success of meeting the project goals it should be rated as Medium Impact. Note: Multiple Medium ratings that are found in similar areas can result in an aggregate rating of High Impact.
L	Low Impact	If the risk is considered to minimally affect schedule, cost, security, project organization or marginally affect the success of meeting the project goals it should be rated as a Low Impact. Note: Multiple Low ratings that are found in similar areas can result in an aggregate rating of Medium Impact.

Overall Risk Rating

The overall rating of a risk is the combination of the probability of occurrence and the impact of the risk to project. See rating charts below:

PROBABILITY	IMPACT		
	Low	Med	High
High	MED	HIGH	HIGH
Med	LOW	MED	HIGH
Low	LOW	LOW	MED

Attachment A: Detailed Security Concerns (July Findings)

Findings:

- The current Identity and Access Management (IAM aka. IDM), Single Sign On (SSO), External Self-Administered Role and Role Based Access (RBAC) strategy is not well defined and can be characterized as follows (Note: this information was identified in the recent HIX-IT Logical Structure of Account 4 Whitepaper):
    - o Every user in the system will have single sign-on capability in the system. This means that individual and business functions are comingled in accounts.
    - o Identify proofing approach is currently unclear. Identity proofing is required to provide assurance of non-repudiation. Identity proofing of some form will be required by the Exchange due to the nature of the environment.
    - o Identity proofing is currently at the individual level only. It is unclear how an employer, broker, employee, etc., will be proofed in the system for their specialized role.
    - o Internal staff roles in the system are not defined.
    - o External roles are intended to be self-administered, i.e., a user can join or revoke other users into and out of their accounts.

Risks:

1. Comingling of individual and business accounts is highly unusual especially in the health insurance field. While it seems like a convenience, it may not be desirable from a user, technical, or security perspective. For example, an individual user may also be a Broker. This person may log into their account at home on their personal computer. If this computer is infected with key logger, user account login information could be compromised. A malicious user would then have access to the Brokers personal account and also their Broker account which potentially compromises other employer accounts the Broker may be attached.
2. Identity proofing can be costly and can have a customer usability impact. If the ID proofing is considered to be too cumbersome by the public it can affect the use of the Exchange by the general public.
3. Additional levels of verification may need to be exercised for different roles in the system, For example, how will a Broker prove they are a legitimate Broker in the system? Not clearly planning, defining and detailing the strategy up front can result in significant delay or work stoppage in the project due to security, usability or technical issues that will continue to pop up in the project without a proper strategy and planning effort.
4. Internal system role definition may alter the expected business workflow of Cover Oregon. Doing this work later in the development or after the system is developed can cause rework and or surprises in staff workflow.
5. External self-administered roles currently known in the industry as Enterprise Dynamic Access Control (EDAC) create additional complexity of the public user experience. These types of architectures are relatively new for public use environments and if deemed too complex and not intuitive for average users, it can result in nonuse of the Exchange by the public.
6. Exchange liability for fraudulent activity due to ineffective identity management and self-administered roles is not fully evaluated. For example, Cover Oregon may be held liable or publicly embarrassed if a person fraudulently became a broker in the system and was found to be attached to a number of large Employer accounts. These types of externally, self-administered implementations are relatively new and fraught with risk for a known marketplace, let alone a marketplace in its infancy.

Recommendations:

1. Account comingling: Cover Oregon should find an existence proof of individual and business comingling approach in the health care field prior to implementing this strategy. If precedence is

found in the market, Cover Oregon should seek out the entity and be thoroughly briefed by the entity prior to making this decision.

2. Identity proofing: Cover Oregon should understand the requirements from CMS, IRS, etc with regards to what level of ID proofing is required prior to developing the IDM strategy. For more on Federal ID proofing levels please refer to NIST 800-63.

3. Identity proofing: Identity proofing techniques are both a Business and a IT decision. Cover Oregon will ultimately need to bear the risk that the selected approach poses (legal and user acceptance). Cover Oregon should take an active role in deciding and vetting the approach with the IRS, State DOJ and potential customers of the Exchange. Again, this is the front door to the Exchange access as should be a balance between business efficiency (customer acceptance) and security.

4. Identity Proofing/verification: There may be multiple layers of Identity proofing/verification required. Some users may need to provide proof as an individual only, Broker, and / or employer/employee. Cover Oregon should clearly define the requirements to HIX-IT and expect HIX-IT to create a detailed design document for ID and account management that is vetted with Cover Oregon.

5. Internal role definition: Cover Oregon should overlay role requirements on their internal workflow diagrams to ensure these are identified early in the development process. There are a number of engineering articles on methods for diagramming these requirements.

6. External Self-Administered Roles: Research should be conducted by Cover Oregon to fully understand what the failure rates of these types of implementations from a usability perspective. An expert should be consulted to guide Cover Oregon of necessary.

7. Much greater emphasis should be placed on defining the IDM strategy for Cover Oregon.

8. Reviewing analogous IDM and External Enterprise Dynamic Access Control implementations in the market place should be conducted by Cover Oregon. A comprehensive, detailed strategy should be developed and vetted by Cover Oregon and potentially an independent expert in this field.

9. Cover Oregon should identify all use cases required to implement the IDM, SSO, EDAC and RBAC strategy selected.

10. Where possible, full mock-ups or prototyping of the Identity proofing and external self-administered roles should be made available to the business to determine the usability impact to the customer experience prior to implementation. This determination should use market research and data to fully justify the decisions made.

Attachment B: Detailed Tracking and Reporting (August Finding)

Finding:

- The full scope of the HIX-IT development work is not fully articulated to management at Cover Oregon in a comprehensive manner. The issues are as follows:
  - There are a number of areas that need developed, including:
    - Use cases (general configuration of HIX-IT Components)
    - Interfaces to external IT Systems (approximately 60)
    - User Interface
    - Oracle Policy Automation rule development
    - Security
    - Content Management
    - Data classification and segmentation
    - Rework and refinement
  - Currently the CO Project Management is reporting the state of the 200+ use case work packages as a method of tracking project progress to Cover Oregon Management. While this is important, it only represents a portion of the overall IT development work. For example, current use case iterations being reported on may only comprise 45% of the overall IT work.
  - The current use cases that have been developed in iterations 9 through 12 are reported as "completed". According to the HIX-IT Product Planning document they are still rated as "blue" or incomplete due to the additional items identified above.

Risks:

1. Measuring Exchange Development progress via the number of use cases only will cause incorrect expectation setting and confusion on the part of Cover Oregon over the coming months.
2. Calling use cases "complete" is problematic and may cause incorrect expectation setting and confusion on the part of Cover Oregon.

Recommendations:

1. Cover Oregon should work with HIX-IT Program Management to establish a more comprehensive methodology for estimating the level of effort required for the major components of the project.
2. The estimating methodology established above should be closely monitored by Cover Oregon to determine its accuracy over the next few months.
3. Cover Oregon PM should clearly articulate, via significant development areas and metrics, the IT development work in a manner that clearly represents a more comprehensive view of the project and progress.
4. The development areas and metrics identified above should be reported to Cover Oregon's management monthly basis at a minimum.

Attachment C: Contingency Planning (September Finding)

Findings:

OHA OIS has embarked on a significant change in the technology and methodology for deploying and redeploying new and existing applications. Any one of these changes individually would require significant effort for the organization. These challenges are exacerbated by the deadline for delivering a Health Insurance Exchange. The changes that OHA has made and/or is currently making include:

1. Assuming the role of prime contractor for the overall state development effort.
2. Deploying technology that is largely new to OHA.
3. Deploying an integrated enterprise architectural vision that is largely new to OHA.
4. Deploying a new software development lifecycle (iterative) that is new to OHA.
5. Re-organizing the delivery model (centralized model) for IT projects within OHA.
6. Standing up new processes to support this new delivery model.
7. Merging the technology and business operations of three organizations (OHA, DHS and CO) and attempting to develop a "no wrong door" approach (see attachment D).

Furthermore, OIS does not have experience in estimating level of effort within the HIX-IT project team or within OIS shared services team using a common estimation methodology. It may take several iterations to sync the methodologies when they are stood up.

A risk was raised by the Oracle development team regarding the use of a single instance of WebCenter for development. Oracle recommended that separate instances be used as the planning and coordination issues are considerable and likely will slow development. It is our understanding that a decision has been made by OIS shared services (no written decision has been made available) to use a single instance.

Application and architecture decisions require Modernization agreement prior to implementation. The projects are on different timelines, have only partially overlapping priorities and have a different sense of urgency. See matrix below for priorities.

	DHS	OHA	CO
Individual Tax Credit	P3	P2	P1
SHOP Tax Credit	NA	NA	P1
MAGI (Medicaid/CHIP) eligibility, shopping and enrollment only	P2	P1	P2
Non-Magi			P3
Other Medical			NA
Non medical	P1	P4	NA

The OIS and HIX-IT overall governance structure as stated in the Project Charter does not appear to be functioning. This process needs to be clarified, documented and made balanced and transparent for the business, and all development teams going forward.

OIS does not appear to have formal, detailed, documented, functioning, transparent technical governance or data governance committees.

The software applications are expected to be merged for the first time towards the end of the HIX-IT project. This has never been attempted within the OHA development teams to date. The technical components of the merge are known to some degree, but how the organization will approach and deal with "collides" on a business level has never been done in OHA/Cover Oregon.

OHA must produce, sync and baseline a variety of detailed schedules (HIX-IT, Modernization, Security, MDM, Environments, OPA/application business rules, SOA, Webcenter, PeopleSoft, IVR, UI, OBIE and CO) for this project to be successful.

OHA and the HIX-IT project has slipped a number of proposed deadlines to date (see scheduling section). Cover Oregon has a schedule that is highly dependent on the HIX-IT, Modernization, and OIS shared services schedules. And vice versa.

A number of basic project processes are not fully implemented within the OIS project structure (e.g., change control, testing, common estimation methodology, common schedule methodology, common activity diagramming methodology, etc.)

Carrier JADs and UI development work under way at CO are expected to continue until the end of the 2012. These items will probably lengthen the overall delivery timeline.

The current high level CO Timeline and the more detailed MS Project Schedule do not have specific usability testing activities identified.

Risks:

1. With the project deadline less than 1 year away and the lack of a stable and experienced organization, development and delivery teams within OHA as well as the requirements delay within CO, the probability of missing the target date is currently an issue.

Recommendations:

1. CO should prepare a number of trigger points over the remaining timeline of the project to ensure that scope is continually sized to meet the target date. For example, on November 5th 2012 OHA OIS is scheduled to deliver a detailed project schedule for the remainder of the HIX-IT project. On this date, CO should have a formal review with the OHA CIO, HIX-IT, shared services project teams and QA to understand in detail the project approach, schedule, dependencies and issues. This information can then be utilized to gauge the

progress against an internal CO confidence checklist. The objective of this review should be to determine if significant components of scope should be deferred. Each trigger point would have a different checklist depending on where the project is on the timeline. An example of a checklist for Nov 5th could be as follows:

a) Can scope be locked?
b) What percent of scope is outstanding?
c) Are schedules for all of the project areas complete, detailed, synced, and tracked using a common methodology?
d) Are all project schedules being developed with a common estimation methodology?
e) Are key dependencies identified within the schedules and are they listed for the executive management to review?
f) Do the schedules have any slack in them and/or does all the scope fit within the current schedule?
g) Do the schedules allow for any refinement once the system is constructed?
h) Do the Oracle teams agree with the schedules?
i) Have Modernization and CO documented the integration points within the application for "No Wrong Door"?
j) Is the data that is to be passed from each application clearly documented?
k) Is HP ALM operational?
l) Are the test teams on board?
m) Is there a functional, technical and data governance structure that is balanced and transparent to CO in place and operational?
n) Are notes and decisions from these committees clearly documented for the development teams to build from?
o) Etc.

The answers to this checklist can then determine a go/no-go for the current scope. If the decision is a no-go for the current scope, CO should have a list of predefined, prioritized and agreed to scope reduction options that can be employed immediately. Scope reduction options could be looked at from a horizontal (across all CO application components) and then, if need be, from a vertical application perspective. An example of scope reduction options could be as follows:

Scope reduction examples from a horizontal perspective:

a) Reduce the complexity of the current architecture.
b) Defer the merge and rebaseline of code until after go live.
c) Implement separate instances of Oracle components that are dependent on interagency business integration.
d) Reduce the dependency on the integration with other programs by deferring the "No Wrong Door" approach.
e) Implement UI wireframes using Siebel.
f) Etc.

Scope reduction examples from a vertical perspective:

a) Defer significant portions of the PeopleSoft components and process the billing manually.
b) Defer electronic plan loading from the Carriers.
c) Defer online Medicaid eligibility, plan selection and enrollment within the Exchange and process them manually.
d) Etc.

Each of these options would be pre-sized so that depending on the amount estimated schedule variance or slack desired by CO an equal amount of scope can be deferred. For example, if the schedule is off by 20% and reducing the complexity of the architecture can save 20% in the schedule then this would be employed because it is prioritized high and equals the needed time savings.

The formality of this process will give CO executive management a clear understanding of the project status and enable them to pull the appropriate levers to make the project successful at a variety points in the upcoming year.

Attachment D: "No WrongDoor" Cooperation (September Finding)

Findings:

OHA/DHS and CO have a general agreement to create a "no wrong door" approach for eligibility and enrollment for state-sponsored medical programs and commercial insurance. This requires the businesses be aligned from both the operational perspective and the informational technology perspective to create a "to-be", future business state model. This is truly a transformation to the way that health coverage is to be administered across the state. Unfortunately, there is no clear authoritative document that defines the expectations for all the programs, authority/delegated authority, governance and detailed functional roles and responsibilities.

This overall business transformational effort that is being under taken is also not currently being tracked like a formal project. Typically a project of this size would have specific governance reporting, charter, scope, tasks, milestones, deliverables, and deadlines for the interagency work that is to be accomplished both operationally and technically.

For example, technical/architectural decisions are being made that may not fully align with the intent of the CO business model. The situation is aggravated by the lack of clear and comprehensive documentation for interagency cooperation with respect to requirements, process interface points, data passing, data sharing, portal entry and exit points, identity and access management, and document sharing.

Risk:

1. Lack of a clear, detailed, integrated view of "no wrong door" will hamper a smooth implementation of this vision
2. Lack of clear direction, governance, and delegation of authority from the OHA, DHS and CO leadership will result in a missed opportunity to integrate the "no wrong door" approach in time for the October 2013 opening the Exchange.
3. Lack of a formal structure for this interagency business project will result in open ended work that may or may not yield sufficient information in time to be incorporated into the development schedule.
4. Without clear direction/requirements from the businesses, technical decisions will be made that may or may not align to the long term operational plan for the businesses. This may require rework or additional future project to realign the technical decisions being made.
5. Without clear operational agreements, staff will not be efficient in executing required transitional tasks for their programs, e.g., process reengineering, job reclassification, resource plans, inter-program agreements, etc.
6. Without a defined process, project, and governance transparency, QA, development, operations, and executive management in the stakeholder agencies will not be able to monitor the progress of the effort to ensure that it is implemented in a timeframe and

manner that fits the vision outlined by the Directors of OHA and DHS, the Executive
Director of CO for the State of Oregon.

Recommendations:

The Executive Directors from OHA and CO should commission the business leaders to draft a
charter document for interagency transition project. An example of the makeup of a charter
document may include:

1. General vision of all the leaders.
2. Scope, which identifies all the agency programs that are required to participate in the effort.
3. Governance structure that identifies the two Executive Directors of OHA and CO as the
   sponsors identifies the business executive's steering committee and their responsibilities.
4. Assignment of a project manager and scheduler that will produce a baseline schedule within
   15 calendar days of charter implementation.
5. High level deliverables, such as:
    a. All relevant agencies submit detailed information to a "no wrong door" operational
       and technical plan that will identify the "to-be" operational and technical
       requirements. This document will be required to be delivered to the steering
       committee no later than 45 calendar days after the project charter is released.
       This document should include:
        i. Identification of all policy changes for each program with respect to the
           "no wrong door" initiative.
        ii. Identification of the following information about each on-line application:
            1. General screening requirements for all programs (Medicaid, QHP, etc).
            2. Detailed map of how clients will access each program through the
               on-line portal (client direct, community partner, navigator staff portal,
               etc).
            3. Specific data elements that is required for each application when they
               are passed from another application.
            4. Identification of a common point of transfer (after screening, after
               application completion, etc.)
            5. Identification of a common point of entry from a transfer (at additional
               screening point, selection of benefit, etc.)
        iii. Identification of the following information about their handling of paper
            and fax applications, phone/IVR applications:
            1. Identification of the agency that will handle processing of specific
               applications/or portions of applications.
            2. "Warm" handoff of clients that call in and require a transfer to another
               agency.
            3. Identification of common staffing of support and customer service
               centers, if required.
        iv. Identification of any issues, risks, barriers, roadblocks or concerns to
            implementing the operational and technical plan. Along with any
            roadblocks, barriers or concerns, the agency should propose a solution or
            solutions as a remedy.
        v. Recommendations for the content of an integrated transition plan.
6. High-level schedule, including definition of "no wrong door" process flows and detailed
   requirements.

Attachment E: Architecture Simplification (November Finding)

Findings:

- The current architecture implementation of the ORACLE stack may not suit the operational business needs of Cover Oregon.

   Background:

In the September MAXIMUS made the following statement in Attachment C of the Cover Oregon (CO) monthly report.

- Oregon Health Authority (OHA) Office Information Services (OIS) has embarked on a significant change in the technology and methodology for deploying and redeploying new and existing applications. Any one of these changes individually would require significant effort for the organization. These challenges are exacerbated by the deadline for delivering a Health Insurance Exchange. The changes that OHA have made and are currently making are as follows:
   1. Assuming the role of prime contractor for the overall state development effort.
   2. Deploying technology that is new to OHA.
   3. Deploying an enterprise architectural vision that is new to OHA.
   4. Deploying a new software development lifecycle (iterative) that is new to OHA.
   5. Re-organizing the delivery model (centralized model) for IT projects within OHA.
   6. Standing up new processes to support this new delivery model.
   7. Merging the technology and business operations of three organizations (OHA, DHS and Cover Oregon (CO)) and attempting to develop a "no wrong door" approach.

In general, the aggregation of the above items constitutes a very high risk for the Health Insurance Exchange ability to meet its business objectives. Two of these items are borne out of an industry belief of cost savings to an organization, items 3 and 5. This document is intended to further describe these items so that all parties have clarity of the significance of the risk taken by the State.

   Definitions:

Separate instance (SI) systems – is a method of implementation where each business unit has a separate and complete technology stack for each business unit.

Global Single Instance (GSI) – is a method of implementation that consolidates common lines of business into a single instance of a technology stack from top to bottom.

Enterprise Integration Architecture (EIA) – is a method of implementation that consolidates common services of a technology stack across similar lines of business and implements separate components for less common processes. For example, security would be a shared

service among all business units and the CRM module may be separate instances for each of the business units.

The proposed HIX-IT architecture is a hybrid of the GSI and the SI approaches.

General Implementation Characteristics

The Global Single Instance to the Separate Instance implementation approaches have an inverse relationship with respect to efficiency and flexibility. The GSI approach has the highest degree of efficiency with respect to licenses required and staff needed to operate and maintain the system. In the GSI approach the flexibility of the businesses to make changes and release new features is considerably curtailed because multiple business lines need to be consulted and agreement must be made on priorities among those businesses. This prioritization effort is required to utilize shared services resources most efficiently. Conversely, the Single Instance approach has the least efficiency and greatest flexibility.

Item 3: Deploying an enterprise architectural vision that is new to OHA.

Nationally, Health and Human Services organizations have a vision of a "No Wrong Door" approach to delivering benefits to their clients. The approach is borne out of the idea that costs can be reduced and services to clients can be improved at the same time. The "No Wrong Door" approach is also required in the ACA. It is important to note that this vision is not related to the system architecture; it is merely an operational vision. Many different architectural approaches can be deployed to implement the desired "No Wrong Door" vision.

OHA/DHS (OHA) OIS is deploying a combination of ORACLE products that together will make up the Oregon OHA and CO solution. The ORACLE solution is comprised of ORACLE developed products and products merged into Oracle through company acquisitions.

OHA has decided that a Global Single Instance (GSI) Architecture approach is the desired strategy for OHA. The GSI architecture implementation is defined by have a single instance for each ORACLE Component servicing all business entities (Modernization and CO) using the system. This decision was made prior to the establishment of the Health Insurance Exchange business. The IT industry, especially ORACLE, believes that this implementation has significant cost savings via reducing the amount of licenses and support staff required to deliver the solution to the businesses.

This architecture approach is typically an evolutionary approach of organizations that currently have separate instance CRM and ERP systems for each business unit. Gartner suggests, "This is the approach (single instance) that should be considered in the integrated organization where there is a high degree of dependence and commerce among units". The degree of integration, dependency and commerce between OHA and CO is primarily in the Medicaid arena. The commonality of the DHS/OHA and CO organizations is currently estimated to be 10% of total system Exchange volume.

A GSI implementation architecture is typically promoted for organizations that have existing separate instances as a way to save costs and improve efficiency for common business units. For example, a manufacturing company with multiple instance architecture (separate ERP or CRM systems) for existing business lines, will evolve to a single instance architecture when they have mature, common business units, that have common businesses processes.

Separate instance systems are often moved to a single instance over a significant period of time and in a serial process using simple pilot projects. This is due to significant business process reengineering and technical challenges and complexities involved in this effort.

OHA and CO business characteristics are different then what is mentioned above in a number of ways:

a) OHA and CO are separate government organizations with different business missions and goals.
b) CO is a public corporation and is governed by different rules and regulations then OHA.
c) OHA and DHS do not currently have common processes and governance structures.
d) CO is a newly formed entity with untested Greenfield processes.
e) CO and OHA have different business timelines.

OIS has also decided to implement Modernization and the Health Insurance Exchange into a single instance in a "big bang" style, i.e., OIS intends to launch the both applications simultaneously. The selection of implementation approach is a strategic decision that should be made with executive business management understanding what the technical, development, operational and maintainability risks and impacts are to the business. Forrester Research says, "that business process and applications professionals face a variety of challenges in defining the single instance and identifying an apt consolidation model and hence companies should adopt a cautious, phased consolidation strategy".

> **Item 5: Re-organizing the delivery model (centralized shared services model) for IT projects within OHA.**

Traditionally the development of a shared-service organization (SSO) or shared-service center (SSC) within an organization is an attempt to reduce costs and standardized processes through economies of scale and centralization. A Global Service Center Benchmark study carried out by the Shared Services & Outsourcing Network (SSON) and the Hackett Group, which surveyed more than 250 companies, found that only about a third of all participants were able to generate cost savings of 20% or greater from their SSO.

Risks:

> **Item 3: Deploying an enterprise architectural vision that is new to OHA.**

1.) The reason for adopting the GSI architecture by OIS is primarily cost savings in licensing, operations and maintenance. However, there is no formal cost benefit analysis or return on investment models in the business case to back these assertions nor are we aware that they exist elsewhere. Without a quantifiable cost benefit analysis (CBA) or minimally a "before" and

"after" analysis of the costs under both scenarios, there is insufficient data to determine that that one approach is more cost effective then the other. The lack of mature inter-agency processes and/or inter-agency planning in the following areas would seriously affect the CBA or ROI of such a business case:

a) There was limited significant business process analysis and pre-planning,
b) Lack of a clearly defined inter-agency "No Wrong Door" analysis. This is fundamentally the identification of a comprehensive new service delivery model.
c) Lack of a common or functional governance processes,
d) Limited overlap among inter-agency processes,
e) Dissimilar priorities and goals among independent state agencies,
f) Lack of state staff with appropriate skill sets resulting in a heavy reliance on highly paid consultants from all over the nation.

Individually, or in aggregate, these items could easily erode any expected cost savings for years to come.

2.) In addition to the above ROI/CBA factors, a Single Instance architecture approach also has a significant overhead or tax with regards to business operations that is not clearly articulated to the participating business entities. Each time a new business line is added or there is a change to the existing business processes, the Single Instance approach requires a feasibility analysis and/or a merge of the new code with the existing production code. The analysis and/or merge process looks for technical differences between the new and the production code. These technical differences often equate to differences in business operations. These differences or "collides" require the business units to resolve their operational differences prior to launch. Once the code is merged and launched, all of the existing businesses within the Single Instance receive a new release of code.

This process poses challenges in change management, downtime for patching and maintenance, upgradability and it increases the regression testing effort significantly. Legislative rule changes in healthcare or Medicaid over the next couple of years may result in a single business line significantly disrupting other lines of businesses each time changes or new rules are enacted.

> **Item 5: Re-organizing the delivery model (centralized shared services model) for IT projects within OHA.**

3.) OIS also uses cost reduction and standardization as their justification to implement shared services organization. Again, there is no cost benefit analysis or return on investment models in the business case to back these assertions. Without a quantifiable model or a "before" and "after" analysis of the costs under both scenarios, it is dubious to believe that one approach is more cost effective then the other. For example, the following items would seriously affect the CBA or ROI of such a business case:

a) no detailed strategy by OIS to move the organization to this delivery model.
b) not documenting OIS IT processes and work streams pre-implementation,
c) not focusing sufficiently on the transition period,

d) not having a robust operational transition plan clarifying employee resources,
e) lack of state staff resulting in an over reliance on a significant amount of highly paid consultants from all over the nation.
f) not having a risk management or monitoring process in place prior to implementation,
g) no proven functional or technical governance processes.

Individually, or in aggregate, these items could easily erode any expected cost savings for years to come.

Recommendation:

1.) Implementing a new Global Single Instance Architecture and a Shared Services organization requires significant inter-agency process reengineering and a major overhaul of the OIS IT department to occur simultaneously. The simultaneous execution of these initiatives introduces a compounding effect with regards to risk. Some short term risk mitigation has occurred, for example, additional ORACLE staff is being imported from around the nation to add expertise in the executive management, PMO, project management, scheduling and development areas of the organization.

In figure 1 below, a simple implementation analysis was mapped against perceived risks based on the large initiatives set in motion by OIS. This analysis shows the three implementation approaches discussed in this document and the technology characteristics relative to the business requirements and needs that can be expected from each of the approaches.

This simple analysis concludes that the EIA implementation approach may aid in reducing risk for the projects and potentially support a more flexible business environment for Cover Oregon in the foreseeable future. This risk mitigation approach of moving to an EIA implementation will potentially require an increase in upfront and O&M costs by CO.

Figure 1.