IV&V MONTHLY PROJECT STATUS REPORT
PERIOD ENDING SEPTEMBER 30, 2015

Submitted by: William Vacha
Document Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Monthly Project Status Report</th>
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<tbody>
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<td>1.0</td>
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<tr>
<td>Author</td>
<td>Bonnie Harris; William Vacha</td>
</tr>
<tr>
<td>Owner (if different from Author)</td>
<td>William Vacha, CSG Project Manager</td>
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</tbody>
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Amendment History

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<td>0.1</td>
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<td>Bonnie Harris; William Vacha</td>
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</table>
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1. PROJECT BACKGROUND

The UHIP project was launched on January 22, 2013.

The goals of the UHIP project are:

- To provide Rhode Islanders and their families, Rhode Island businesses and their employees, and issuers serving the Rhode Island market an integrated, end-to-end service solution for health insurance and human services programs
- To create an integrated multi-channel solution (web, phone, walk-in) for Medicaid/CHIP, SNAP, TANF, and other human services programs, as well as (subsidized and unsubsidized) commercial health insurance
- To modernize the eligibility systems for the State’s health and human services programs
- To add value to small business health insurance purchasing
- To enhance the customer experience—and the State’s efficiency—for all programs involved

1.1 Project Constraints

The State’s limited resources (funding and staff) and aggressive project schedule provided unique challenges:

- The UHIP Project requires State subject matter experts with business and technology experience; the State’s focus on day-to-day operations limits the number of available resources to assist with the project
- The project’s aggressive schedule has been driven by external (Federal) milestones:
  - October 1, 2013 – Open enrollment began
  - January 1, 2014 – Implementation of a fully ACA-compliant Exchange
  - December 31, 2015 – 90% federal matching funding for Integrated Eligibility Systems (permanent change to 90% matching is pending) and waiver of program cost allocation requirements (extension to December 31, 2018 is pending)
2. IV&V OVERVIEW

The HHS Enterprise Performance Life Cycle (EPLC) framework defines IV&V as a rigorous independent process that evaluates the correctness and quality of the project’s business process to ensure that the project is developed in accordance with customer requirements and is well engineered.

2.1 IV&V Objectives

The objectives of performing IV&V include:

- Facilitate early detection and correction of cost and schedule variance
- Enhance management insight into process and product risk
- Support project life cycle processes to ensure compliance with regulatory, performance, schedule, and budget requirements
- Validate the project’s products and processes to ensure compliance with defined requirements
- Provide supporting evidence that the product satisfies client requirements

CSG recognizes the need for maintaining strict independence from the overall project management team and implementation vendor. In this role, CSG provides an objective perspective that is intended to minimize risk and maximize the opportunity for the success of the overall project effort.
3. IV&V APPROACH

CSG’s risk assessment primarily focuses on:

- **Schedule/Resources** – Is the schedule defined, managed, and properly resourced?
- **Scope** – Is scope defined and managed; including requirements management traceability?
- **Cost** – Are budget requirements defined and managed?
- **Quality** –
  - Are quality processes defined and followed?
    - System Development Life Cycle (SDLC) processes
    - Project Management (PM) processes
  - Does these PM and SDLC processes result in quality outcomes (deliverables)?

Inputs to our assessment include project documentation and industry standards:

- Project meetings with the State, Deloitte, Northrop Grumman, KPMG, and PCG
- The State of Rhode Island and Deloitte Unified Health Infrastructure Project Agreement/Bridging Document and other amendments as made available
- The UHIP Project Management Plan (i.e., Plan 01) and related deliverables
- Industry Best Practice documents, including the following:
  - A Guide to the Project Management Body of Knowledge (PMBOK)
  - Multiple IEEE Standards
4. **IV&V Project Highlights**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>RI UHIP (IV&amp;V) – Phase 1</th>
<th>Project Health</th>
<th>Moderate Risk – Consider corrective action or monitor previous corrective action; moderate areas of concern have been identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name</td>
<td>RI UHIP (IV&amp;V) – Phase 2</td>
<td>Project Health</td>
<td>Moderate Risk – Consider corrective action or monitor previous corrective action; moderate areas of concern have been identified</td>
</tr>
</tbody>
</table>

This Monthly Project Status Report provides a review of the project status of Phase 1 and Phase 2 from September 1, 2015 through September 30, 2015. Risk mitigation/avoidance actions taken since the prior IV&V report are outlined in Section 7 of this report. These activities did not change the Phase 1 and Phase 2 overall health rating assessments of “Moderate Risk – Consider corrective action or monitor previous corrective action; moderate areas of concern have been identified” compared to last month.

**Key Messages/Highlights**

UHIP Project risks are categorized into the following areas: Scope, Cost, Schedule/Resources, and Quality. A summary of project risks and related concerns, as of September 30, 2015, is provided below. The progress of corrective actions taken during September is outlined in Section 7 – IV&V Risk Status.

- **Scope**
  - The goal of scope management is to apply and enforce scope management processes:
    - Requirements Traceability Matrix (RTM) management, as outlined in approved project planning deliverables, must be applied and enforced to ensure existing requirements are delivered and new/changed requirements are addressed
    - Change Control, as outlined in approved project planning deliverables, must fully consider the impact of each change on the project’s schedule, resource requirements, and finances
  - Scope management is intended to address the scope issues experienced in September:
    - The centralized database design and data model is under construction
    - Deloitte continued to prepare for SOC 2 Type II (security system testing)
    - The contractual 2015 Disaster Recovery Plan and test date needs to be finalized
    - CMS 834 Integration Testing on hold per CMS
    - Functional (Appendix M) and technical (Appendix N) requirements have not been finalized

- **Cost**
  - The IAPD Update is pending FNS approval (as of September 30, 2015)
  - Additional State funds have been requested via the revised SFY2016 budget process to cover pending EOHHS and DHS UHIP costs
## Key Messages/Highlights

- HSRI continues to closely monitor funding issues based on responses received from CMS and FNS

### Schedule/Resources

- Phase 1 Release 6.5 go-live on target for October 5, 2015
  - UAT defects being deferred to future enhancements and M&O releases
- Phase 2 Release 7 UAT does not have a defined end date
- Lack of available Deloitte resources to discuss technical architecture changes

### Quality

- Number of UAT defects deferred within past Phase 1 UATs and Release 6.5
- Completed Bimonthly Code Review #7 on HIX; started Bimonthly Code Review #8 on IES
- Deloitte Security Team generating an application vulnerability security report
- Performance testing was conducted by Deloitte

The remaining sections of this document outline the basis for CSG’s assessment.
5. **IV&V Project Dashboard**

<table>
<thead>
<tr>
<th>OVERALL HEALTH RATING</th>
<th>Previous</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moderate Risk (Phase 1)</strong> – Consider corrective action or monitor previous corrective action. Moderate areas of concern have been identified.</td>
<td><strong>Moderate Risk (Phase 1)</strong> – Consider corrective action or monitor previous corrective action. Moderate areas of concern have been identified.</td>
<td></td>
</tr>
<tr>
<td><strong>Moderate Risk (Phase 2)</strong> - Consider corrective action or monitor previous corrective action. Moderate areas of concern have been identified.</td>
<td><strong>Moderate Risk (Phase 2)</strong> – Consider corrective action or monitor previous corrective action. Moderate areas of concern have been identified.</td>
<td></td>
</tr>
</tbody>
</table>

Risk mitigation/avoidance actions have been taken since the prior IV&V report and are outlined in Section 7 of this report. The key activities include:

- **Scope**
  - Marketplace Failure to Reconcile (FTR) IV&V attestation submitted
  - Healthcare.gov disaster recovery successfully tested
  - Phase 1 Release 6.6 FDDs under construction (4 of 6 approved)
  - Phase 2 Release 7 continues to be under construction

- **Cost**
  - CMS approved the IAPD Update through December 2015 for DDI; substantially increasing the amount of Federal funding
  - EOHHS & DHS submitted revised FY16 and FY17 budget documents which request additional State funds for UHIP expenses

- **Schedule/Resources**
  - Phase 1 Release 6.5 UAT efforts continued through September
  - Phase 1 Release 6.5 Carrier Integration Testing (CIT) continued through September
  - Provided onsite support for both the Phase 1 and Phase 2 UAT testers
  - Mock Pilot #2 began in the Middletown office

- **Quality**
  - AM-PM Problem Management and Incident Management tickets decreased
  - Three (3) Release 6.4 UAT deferred defects were closed via Release 6.5
  - Continued monitoring weekly key performance indicators and daily operations reports

### 5.1 Project Status Indicators

The following tables represent the current project status indicators for both Phase 1 and Phase 2 activities. The areas of Scope, Schedule/Resources, and Quality are assessed separately for Phase 1 and Phase 2; Cost is assessed the same in both phases.
### Table 1 - Phase 1 & Phase 2 Project Status Indicators

**PHASE 1 - PROJECT STATUS INDICATORS – Overall Status Indicator = Moderate**

<table>
<thead>
<tr>
<th>SCOPE</th>
<th>COST</th>
<th>SCHEDULE / RESOURCES</th>
<th>QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous</td>
<td>Current</td>
<td>Trend</td>
<td>Previous</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
</tbody>
</table>

**PHASE 2 - PROJECT STATUS INDICATORS – Overall Status Indicator = Moderate**

<table>
<thead>
<tr>
<th>SCOPE</th>
<th>COST</th>
<th>SCHEDULE / RESOURCES</th>
<th>QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous</td>
<td>Current</td>
<td>Trend</td>
<td>Previous</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>Moderate Risk</td>
<td>No Change</td>
<td>Moderate Risk</td>
</tr>
</tbody>
</table>

### 5.2 Project Status Indicator Criteria

The following criterion is used to define the indicator in Section 5.1.

- **Low Risk** – Project is on track with minor concerns.
- **Moderate Risk** – Consider corrective action or monitor previous corrective action. Moderate areas of concern have been identified.
- **High Risk** – Immediate corrective action required. Significant concerns have been identified.
### 6. Milestones / IV&V Deliverable Status

The following table lists the CSG IV&V deliverables for the reporting period as of September 30, 2015.

<table>
<thead>
<tr>
<th>Description</th>
<th>Status</th>
<th>Target Date</th>
<th>Date Submitted</th>
<th>Date Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1.2: IV&amp;V Monthly Review and Assessment Report for August 2015</td>
<td>Approved</td>
<td>09/18/2015</td>
<td>09/16/2015</td>
<td>09/30/2015</td>
</tr>
<tr>
<td>3.5.9.3: Monthly Financial Status Report for June 2015</td>
<td>Submitted</td>
<td>09/25/2015</td>
<td>09/16/2015</td>
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<tr>
<td>3.5.3.1.8: Bimonthly Automated and Manual Code Review Report #7</td>
<td>Submitted</td>
<td>09/18/2015</td>
<td>09/17/2015</td>
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<tr>
<td>3.5.5.3.7: UAT Summary Report – Phase 2 Release 7 Cycle 1</td>
<td>Submitted</td>
<td>09/25/2015</td>
<td>09/24/2015</td>
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<tr>
<td>3.5.3.7: UAT Summary Report – Phase 2 Release 7 Cycle 1</td>
<td>Submitted</td>
<td>09/25/2015</td>
<td>09/24/2015</td>
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<tr>
<td>3.5.3.9: Monthly Financial Status Report for July 2015</td>
<td>Submitted</td>
<td>09/25/2015</td>
<td>09/24/2015</td>
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<tr>
<td>3.5.4.1.6: Continuous Integration Review – Phase 2 Release 7 Cycle 1</td>
<td>Submitted</td>
<td>09/25/2015</td>
<td>09/25/2015</td>
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</tr>
</tbody>
</table>

### Upcoming Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Status</th>
<th>Date Submitted</th>
<th>Date Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.9.3: Monthly Financial Status Report for August 2015</td>
<td>Not Started</td>
<td>Pending Finance Files</td>
<td></td>
</tr>
<tr>
<td>3.5.4.1.8: Continuous Integration Review – Phase 1 Release 6.5</td>
<td>In Progress</td>
<td>10/16/2015</td>
<td></td>
</tr>
<tr>
<td>3.5.5.3.9: UAT Summary Report – Phase 1 Release 6.5</td>
<td>In Progress</td>
<td>10/16/2015</td>
<td></td>
</tr>
<tr>
<td>3.5.3.1.8: Bimonthly Automated and Manual Code Review Report #8</td>
<td>Not Started</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>3.5.8.2: System Audit Report - Phase 1</td>
<td>Not Started</td>
<td>End of Phase 1</td>
<td></td>
</tr>
<tr>
<td>3.5.6.2: Implementation Readiness Report - Phase 2</td>
<td>Not Started</td>
<td>Pending New Schedule</td>
<td></td>
</tr>
<tr>
<td>3.5.7.1.2: Reusability Report – Phase 2</td>
<td>Not Started</td>
<td>Pending New Schedule</td>
<td></td>
</tr>
<tr>
<td>3.5.8.1.2: System Audit Plan – Phase 2</td>
<td>Not Started</td>
<td>End of Phase 2</td>
<td></td>
</tr>
</tbody>
</table>
7. IV&V RISK STATUS

UHIP project risks have been summarized into four (4) groupings: scope, cost, schedule/resources, and quality.

7.1 IV&V Risk State: Scope

- The centralized database design and data model is under construction
- Deloitte continued to prepare for SOC 2 Type II (security system testing)
- The contractual 2015 Disaster Recovery Plan and test date needs to be finalized
- CMS 834 Integration Testing on hold per CMS
- Functional (Appendix M) and technical (Appendix N) requirements have not been finalized

**Major Impacts:**

- Deloitte will provide a list of all system, network, and hardware changes for submission to CMS
- The design document for the centralized database requires thorough technical analysis
- Current development activities to update HSDW with new IES fields are temporarily on hold
- The contractual 2015 disaster recovery test has been delayed due to the site change
- Outstanding functional and technical requirements may expand scope within the Phases

**Recommended Additional Actions:**

- A contract amendment is needed to finalize the scope of Phase 1 and Phase 2
- Additional technical expertise should focus on the centralized database architecture
- The overall RTM (Appendix M and Appendix N) should be continuously updated within JAMA

7.2 IV&V Risk State: Cost

- The IAPD Update is pending FNS approval
- Additional State funds have been requested via the revised SFY2016 budget process to cover pending EOHHS and DHS UHIP costs
- HSRI continues to closely monitor funding issues based on responses received from CMS and FNS

**Major Impact:**

- Funding for additional contract amendments is dependent on the approval of the IAPD Update
- EOHHS, DHS, and HSRI will need additional funding to meet their long term UHIP financial commitments from a State funds perspective
- EOHHS, DHS, and HSRI will be asked to approve additional spending that will require additional UHIP budget appropriations for State funds (e.g., change requests)

**Recommended Additional Actions:**

- Continue to coordinate with the Budget Office about EOHHS and DHS FY16 funding via the State’s revised budget process
7.3 IV&V Risk State: Schedule/Resources

- Phase 1 Release 6.5 go-live on target for October 5, 2015
  - Number of UAT defects being deferred to future enhancements and M&O releases
- Phase 2 Release 7 UAT does not have a defined end date
- Lack of available Deloitte resources to discuss technical architecture changes

**Major Impact:**
- Deferred UAT defects may impact future release schedules
- UAT efforts and design sessions for Phase 1 and Phase 2 stretch all resources
- Limited knowledge sharing about centralized database; limited technical expertise onsite

**Recommended Additional Actions:**
- Continue to increase subject matter expertise (SME) oversight on functional and technical design documents; technical architecture SME to review the centralized database approach
- Finalize the Phase 2 Release 7 schedule to define all milestones and the official go-live date
- Develop a project plan to conduct releases beyond Phase 1 Release 6.6 and Phase 2 Release 7

7.4 IV&V Risk State: Quality

- Number of UAT defects deferred within past Phase 1 UATs and Release 6.5
- Completed Bi-Monthly Code Review #7 on HIX; started Bi-Monthly Code Review #8 on IES
- Deloitte Security Team generating an application vulnerability security report
- Performance testing was conducted by Deloitte

**Major Impact:**
- Deferred Phase 1 UAT defects may impact scope, cost, schedule, and resources
- Insufficient comments within classes and class sizes exceed best practices
  - Noted improved logging activity and the removal of “commented out” code
- Vulnerability testing ensures all security vulnerabilities are identified and discussed
- Performance was validated against SLAs and common expected usage scenarios

**Recommended Additional Actions:**
- “Real life” test scenarios should be thoroughly documented within every FDD
- Add sufficient comments; make efforts to reduce class sizes; discuss remediation actions
- All vulnerability issues should be thoroughly documented and addressed
- Continue to utilize the SDLC and post-production checklists
- Continue to examine and monitor system performance
7.5 Issues That Require Attention

There are no issues that require attention for CSG’s risk assessment; however, observations and recommendations are listed under Section 9.1.
8. PROJECT SUMMARY – SEPTEMBER

This section contains a summary of project accomplishments and activities for this period based on CSG’s Statement of Work (SOW).

8.1 Manage IV&V Services

CSG provided the following IV&V services in the month of September 2015:

- Reviewed the following Deloitte deliverables
  - UHIP-99456 Additional SEP Modifications FDD
  - UHIP-92989 Federal PEV FDD
  - UHIP-95021 SHOP Group ML Terms FDD
- Created the following IV&V deliverables:
  - Weekly IV&V Status Reports (multiple submitted)
  - Monthly Financial Status Reports (multiple submitted)
  - IV&V Monthly Review and Assessment Report (approved)
  - UAT Summary Report – Phase 2 Release 7 Cycle 1 Summary (submitted)
  - Continuous Integration Review – Phase 2 Release 7 Cycle 1 (submitted)

8.2 Coordinate and Oversee UAT

-Managed and provided oversight of Phase 1 and Phase 2 UAT efforts
-Submitted Phase 2 Release 7 Cycle 1 UAT Summary Report

8.3 Validate Automated Code Review Results

Submitted Bimonthly Automated and Manual Code Review #7

8.4 Validate Continuous Integration Test Results

Submitted Phase 2 Release 7 Cycle 1 Continuous Integration Report

8.5 Verify Implementation Readiness

No implementation readiness activities conducted in the month of September

8.6 Verify Component Reusability

No reusability verification activities conducted in the month of September

8.7 Perform a System Audit

Awaiting the end of Phase 1 and Phase 2

8.8 Perform Financial Reviews

Please refer to section 7.2 for more information on key IV&V Financial observations for this month.
9. **SUMMARY OF KEY RECOMMENDATIONS AND OBSERVATIONS**

The following is a summary of Key Recommendations:

- A contract amendment is needed to finalize the scope of Phase 1 and Phase 2
- Additional technical expertise should focus on the centralized database architecture
- The overall RTM (Appendix M and Appendix N) should be continuously updated within JAMA
- Continue to coordinate with the Budget Office about EOHHS and DHS SFY2016 funding via the State’s revised budget process
- Continue to increase subject matter expertise (SME) oversight on functional and technical design documents; technical architecture SME to review the centralized database approach
- Finalize the Phase 2 Release 7 schedule to define all milestones and the official go-live date
- Develop a project plan to conduct releases beyond Phase 1 Release 6.6 and Phase 2 Release 7
- “Real life” test scenarios should be thoroughly documented within every FDD
- Add sufficient comments; make efforts to reduce class sizes; discuss remediation actions
- All vulnerability issues should be thoroughly documented and addressed
- Continue to utilize the SDLC and post-production checklists
- Continue to examine and monitor system performance
9.1 Observations and Recommendations

Below is a log of the remaining observations and recommendations made by the IV&V team for the month of September 2015.

**Table 3 - Observations and Recommendations**

<table>
<thead>
<tr>
<th>ID</th>
<th>Functional Area</th>
<th>Observations</th>
<th>Recommendations</th>
<th>Actions</th>
</tr>
</thead>
</table>
| 376 | Technical | PEV OPA Batch  
The PEV OPA batch affected a large number of people by giving incorrect start dates, end dates, and aid category codes. The issue was first encountered after the September 24th M&O release. This issue has impacted the health plans and MMIS. There is a possibility of double capitation paid to the health plans, due to overlapping segments of coverage. | Deloitte should present the State with a high priority resolution plan with all impacted accounts identified. Going forward Deloitte should develop a plan to conduct a full round of regression testing before each M&O release. Automated regression testing is recommended and the results shared with the State prior to each M&O release. | 09/25/15 BM – A priority 2 ticket has been logged by the State on this issue. |
<table>
<thead>
<tr>
<th>ID</th>
<th>Functional Area</th>
<th>Observations</th>
<th>Recommendations</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>375</td>
<td>Technical</td>
<td>Disaster Recovery (DR) site moving to Sacramento Deloitte verbally informed the State that the DR site managed by NTT Data will be relocated to Sacramento from San Jose. In addition, the contractual DR planned for October may not happen because of the pending site change. The disaster recovery environment is a mirror image of the Warwick data center technology, where both data and the server images are replicated asynchronous to the DR facility. The State is required to communicate any DR site change to CMS for prior approval.</td>
<td>Deloitte should provide more explanation to the State about the new DR site change. The new site change, including testing efforts should be documented or update the DR Plan 12 and then circulated through the State PMO process for formal approval. CMS should also be of the pending change for prior approval. Deloitte should make arrangements with the State designee to inspect the new Sacramento site.</td>
<td>09/25/15 BM - Deloitte mentioned that they plan to submit the site change formal request by next week. The State has asked Deloitte to submit a change request to the PMO.</td>
</tr>
<tr>
<td>373</td>
<td>Requirements</td>
<td>State Contract Manager Needed A full-time Contract Manager would enable the State to more thoroughly address functional and technical requirements during both the approval process of contract amendments and post-approval compliance period.</td>
<td>The Contract Manager’s responsibility is to ensure contracts and contract amendments are properly structured and followed. This focus protects the State and all project stakeholders from both failing to meet contractual requirements and broadening scope. The State would benefit most by acquiring a contract manager before the Phase 2 contract amendments are finalized; however, the acquisition of a dedicated contract manager is beneficial at any time to properly enforce existing contracts.</td>
<td>09/09/15 BV - The role of a Contract Manager was discussed during the Weekly IV&amp;V Status Update.</td>
</tr>
<tr>
<td>ID</td>
<td>Functional Area</td>
<td>Observations</td>
<td>Recommendations</td>
<td>Actions</td>
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<tr>
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<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td>372</td>
<td>Testing</td>
<td>Enhancement Defects are being moved out of SIT and into M&amp;O</td>
<td>Deloitte should be required to seek the State’s approval to move defects from SIT into M&amp;O. This will allow the State to fully assess the quality of SIT and gain an understanding of what may impact the quality of UAT; it also allows the State to fully understand and manage what defects are being sent to M&amp;O. Deloitte should be required to seek State’s approval prior to moving any SIT defect into M&amp;O regardless of severity/priority in the SIT Exit Report.</td>
<td>09/15/15 BV - This observation pertains to SIT defects identified within an enhancement release but moved into M&amp;O.</td>
</tr>
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</table>

Defects are being moved out of SIT and into M&O without the State’s knowledge and approval. Moving defects out of SIT impacts the State’s ability to fully assess the quality of SIT and impact the State’s ability to make an accurate Go/No Go decision for UAT. When defects are moved from one release to another, it is not possible to trace them, traceability is totally lost without prior knowledge of the defect ID. It also impacts the number of items the State is agreeing to manage through M&O. In addition, this impacts the quality of the application that is being deployed into UAT.
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| 371| Requirements   | Phase 2 - Requirement Traceability Matrix (RTM)  
The current RTM partially supports the new centralized database approach for the UHIP architecture framework. The citizen and the worker portal applications will be integrated with shared functionalities. This will be a significant change to existing architecture, including security and shared application frameworks. Without an updated RTM it will be difficult for the State to interpret and keep track of the requirements. The RTM helps to create a downstream flow of connecting software requirements to product requirements. | As changes are implemented, Deloitte and the State should perform the required updates to the RTM. The RTM will help ensure that the project requirements are met as well as track all changes made to the system. | 09/25/15 BM - CSG has provided feedback to the State.  
09/11/15 BM – An inquiry was made to Deloitte’s technology roundup representative; no updates so far on Appendix N from Deloitte.  
08/28/15 – According to Deloitte the RTM Appendix M will be updated after every release. For Appendix N, no updates have been made by Deloitte as of now. Deloitte will discuss Appendix N during the next technology roundup. |
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<tr>
<td>369</td>
<td>Testing</td>
<td>HIX Application Vulnerability Testing Deloitte is currently conducting security testing within the HIX application; the security testing plan and the scope have not been shared with the State Security team. Deloitte has not made the State aware of what areas of the application where security scans are planned or have been conducted. Nor does the State have insight into any information on when and what level of defects were found during testing. Without this information, there may be security vulnerabilities yet to be identified, discussed, and resolved.</td>
<td>It is recommended that Deloitte informs the State Security team about all activities related to Security testing. The State should be notified about the severity of all defects found and provided with a detailed plan, recommendations, and steps taken to fix any issues identified.</td>
<td>09/25/15 - During Deloitte weekly security meeting, they stated that they are in the process of outlining a report, which will have all security related activities. 09/11/15 BM - Security activities performed on HIX application will be discussed with the State and Deloitte during the next tech meeting. 08/28/15 - There was no discussion on the security testing during the week. 08/19/15 - CSG discussed the observation with the State tech team; the State will follow up with the Deloitte to share the results of the Security application testing which was completed on 08/24/15.</td>
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| 368| Quality Assurance          | Section 508 Compliance (Accessibility) Testing  
Section 508 requires that all website content be accessible to people with disabilities. It was inadvertently discovered that a list of codes were being excluded from Deloitte’s accessibility testing, and the list was not properly documented within any deliverables. This prompted Deloitte to update the Phase 1 Detailed Test Plan (outside of the Change Management process) with the list of exclusions. Since accessibility is not tested in UAT, the State and CSG require Deloitte to provide a letter of attestation that accessibility testing has been completed; however, this does not equate to the true user experience. The State could face serious fines if it is later discovered that the application is not truly 508 compliant and end-users with disabilities are not able to fully utilize the system. | CSG recommends the State identify testers who are visually or hearing impaired to test the accessibility functionality. | 09/11/15 - GJD: CSG will continue to monitor and report Accessibility testing analysis for State review while consideration and vendor selection is discussed.  
08/13/15 - GJD: State discussed the options of employing a company to check the 508 Compliance of UHIP and/or utilizing State staff that may be visually and/or hearing impaired. The State is considering a date that will allow testing to occur to cover both Phase 1 and Phase 2. CSG will continue to monitor. |
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<tr>
<td>367</td>
<td>Technical</td>
<td>CMS Security Update</td>
<td>The State should ask Deloitte to update the architecture document that should contain all the areas to be refactored, modified, and changed in the new database approach; the updates should include all the updated information at least on all the significant areas listed by CMS. The State security team with Deloitte should schedule a meeting to discuss the changes with CMS.</td>
<td>09/25/15 - The State is planning to have a call with CMS to update them on the DR site change and progress on the change request form for the single database design. 09/11/15 BM - Deloitte is still in the process of drafting all the system changes for the State and CMS to review. 08/28/15 BM - There were no discussions on this area/piece of work during the week. 08/20/15 - The State, Deloitte, CSG met with CMS Security Representative responsible for RI (Myrna Leonard) to get more information based on queries that CMS had; CMS mentioned that whenever there is any small or large changes made the State have to notify them and fill out the form to submit the changes for CMS to review. 08/14/2015 - Deloitte security team during weekly</td>
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| 366 | Technical       | 2015 Disaster Recovery Testing  
The 2015 DR plan has not been documented. Viewing disaster recovery at an enterprise level may reveal missing or critical interdependencies. In addition, a complete business continuity plan has not been finalized. There is limited time available to the open enrollment. Disaster recovery should be scheduled and executed before November 2015 (the State previously decided to have DR test before or after Open enrollment period, same will/can be considered for 2015). There has been no point of contact from Deloitte as to whether NTT Data has been identified. | Recommend creating a 2015 Disaster Recovery (DR) Plan. Deloitte should identify the point of contact from NTT and Deloitte’s Infrastructure team for all DR related activities and finalized a date for testing. It is also recommended that Deloitte create and maintain a Disaster Recovery Tracker to track DR plans across vendors and agencies. | 09/15/15 BV - The State requested a copy of the DR plan.  
08/28/15 - Deloitte is currently waiting on the test cases and final list of all the interfaces to be tested during the 2015 DR from the State.  
08/07/15 - During the Deloitte technology roundup meeting, the tentative scope of the 2015 UHIP DR test was discussed. The State has asked Deloitte to finalize the vendor for the circuit to connect NTT Data (SJ) UHIP DR site and Sungard (NJ) State DR site. The San Jose site will connect to the state interfaces in NJ as well as the Federal interfaces. |
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| 365 | Quality Assurance | State Agency Participation within Phase 1 and Phase 2  
Given the State's limited pool of SMEs and the concurrent work activities within both Phase 1 and Phase 2, it's increasingly difficult for the State agencies to be properly represented at all the different meetings. Proper State agency representation and participation are critical to the success of both Phases. Decision-making without the correct agency SME input may lead to future production problems and required enhancements. | Continued State participation in both the Weekly IV&V Update meetings and Weekly Collaborative Discussions is critical. The Weekly IV&V Update meetings will be used to secure the IV&V Team's understanding of the State's involvement within the various project activities. The Weekly Collaborative Discussions (which include the State, Deloitte, PCG, KPMG, and sometimes other stakeholders) will help ensure all the project stakeholders are on the same page. | 09/15/15 BV - The State has been properly represented within both the IV&V Update meetings and Collaborative Discussions. Phase 2 FDD reviews are quite demanding and time-consuming, but the State is methodically working through the documents. |
<p>| 364 | Quality Assurance | Production Dashboard does not accurately reflect the correct number of non-closed work requests | CSG would encourage Deloitte to update the non-closed work requests to include the Clarification and Ready for Production Deployment statuses and in turn this would reflect the correct number of work requests currently in a “Not Closed or Cancelled” status. | 08/24/15 - An email was sent to the listed owner of the Production dashboard, Matt Rufener on 08/12/15; however, an undeliverable email was received stating the email address was rejected. CSG will continue to work on who should be contacted to resolve this issue. |</p>
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<tr>
<td>363</td>
<td>Quality Assurance</td>
<td>Duplicate Release Dashboards in JIRA When searching in JIRA for release dashboards, there were two August 24, 2015 dashboards, however they contained different information.</td>
<td>CSG encourages Deloitte to establish a consistent naming convention for release dashboards and ensure there are no duplicates in the JIRA application.</td>
<td>10/01/15 - GJD Per Deloitte, they have renamed the dashboard to reflect SIT versus M&amp;O. CSG will continue to monitor and compare the dashboards for consistency and reporting. This issue will be closed. 08/21/15 GJD - Per Deloitte, Release 08.24.15: Contains and tracks all the Production Items that are going as part of 08/24 release. The 08/24/15 PH1: Designed for offshore tracking purpose and contains all the tickets that should be tracked to closure for 08/24 release. CSG will work with the State to explain the impact on reporting.</td>
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### ID 361: Requirements

**Observations**

Drug Court and Taverse not tested in P2 UAT

Drug Court & Taverse programs have not been tested in P2 UAT. It has been identified that EOHHS programs like Drug Court and Taverse have not been incorporated into the new IES solution. Scripts are uploaded into JAMA but due to the non-availability of DC and Taverse have not been tested.

**Recommendations**

The State should determine whether these programs need to be incorporated into the new IES worker portal via Phase 2. As per the bridging document, all the human services, programs currently supported by the InRhodes must be incorporated into the IES worker portal. If the programs need to be included, the State should ask DDI vendor to develop the functionalities within the IES.

**Actions**

- **09/01/15** - There are no updates on adding the programs into the worker portal as of now.
- **08/20/15** - No update on adding the programs within the IES during the week. CSG will bring up this with the State again during weekly status.
- **07/24/15** - There has been no discussions so far on how and when these programs will be implemented into the new IES worker portal.
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| 357 | Technical      | MFA for Phase 2 Remote Access  
The IRS asked the State to implement MFA for IES worker portal. UHIP/IES Worker Portal will only be accessible from within the state's network. The IRS guidelines state that the individual accessing system containing FTI from a remote location requires an encrypted modem and/or Virtual Private Network. Additionally, two-factor authentication - cryptographic identification device, token, is required whenever FTI is being accessed from an alternate work location. The IRS has also stated that FTI can only be viewed using State provided laptop or workstation. | Business approval from all the agencies is immediately required for the remote access. The state must determine how this implementation needs will be funded. State and Deloitte must work together to find out if something can be leveraged from the Phase 1 MFA implementation. Gaps and the requirement must be documented instantaneously so that the scope of work can be included in APD. | 09/18/15 BM - Deloitte provided the P1, P2 application overview to the State security team; the State is currently discussing the best approach on the P2 MFA internally.  
09/11/15 BM - The State security CISO requested an application demo by Deloitte to get an understanding of all the system changes; Deloitte has scheduled a session with the State to explain and walk through the new single database design approach. The State will decide whether to go for Juniper VPN or terminal services after the demo.  
08/28/15 - No update on the MFA during the week.  
08/21/15 - During the Deloitte security meeting; the scope and the approach was discussed; the approach has not been finalized. The State will have a follow up meeting with HSRI to discuss further. |
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| 356 | Technical | Centralizing Common Functionalities Between Worker Portal and HSRI Integration  
Deloitte presented 3 different options to the State for IES and Exchange integration. State selected the option to centralize the common functionalities. New design approaches will not require Synchronization of P1 and P2 Databases. Eligibility and enrollment HIX data model will replace with IES data model.  
The approach will integrate functions across Public Assistance and Exchange for EOHHS, CC, and DHS. Reports and Notices between IES and Exchange will be limited to case data only.  
Integrated eligibility system will be considered as a system of record Eligibility, case management, FDSH, Enrollment Data. If any agency is down for maintenance, for release activities or for any unexpected disaster all the areas will be affected and will be out of service. There is very minimal technical architecture, information shared with the State at this time. Plan 10, DMP, Security design plan and other technical documents, which were based on a | Deloitte should be required to provide technical expertise to help the State understand how and what areas of the system will be refactored or modified to incorporate single database efforts. Deloitte has failed to discuss with the State how the immediate storage area for the staging DB data processing will work. Deloitte must work closely with the State and all the agencies to discuss the Phase 2 new architecture approach. An Initial assessment of the new approach is highly recommended to identify any gaps. Critical areas such as 834 and 1095 should also be assessed in parallel. | 09/25/15 BM - CSG requested Deloitte to involve IV&V with the USI team for better understanding in the single database development.  
09/18/15 BM - the State have requested Deloitte to update the technical design document (Plan 10, security design document, DMP, RTM).  
09/11/15 BM - The single database design document which outlines all the database/table changes has been rejected by the State. Deloitte is in the process of scheduling a session with Deloitte to follow up on the open questions and inquiries.  
08/28/15 BM - The list of questions was submitted to Deloitte on the single database design document by the tech team. The document will be revised to accommodate all the required information. |
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| 350 | Finance         | EOHHS/DHS FY2015 and FY16 State Funds  
The Governor's Recommended budget for FY15 and FY16 provides additional funding for UHIP; however, since the budget was developed in late 2014, additional costs have been incurred through various Deloitte amendments. Including Contract Amendment 31, the deficit for GR State funds is estimated to be approximately $1.2 million. The UHIP Finance Group Budget Office representative stated that there is no plan to add additional State funds for UHIP; that would limit the State to reallocating funds from within the EOHHS/DHS budgets. | EOHHS and DHS need to determine how they will be able to obtain or reallocate State funds sufficient to meet the total UHIP funding commitments through the end of FY16. | 09/30/15 - Additional State funds have been requested via the revised SFY2016 budget process to cover pending EOHHS and DHS UHIP costs.  
09/09/15 - The State has a revised budget process. By the end of September, EOHHS and DHS will submit revised budget requests for FY16. This will include a request for additional UHIP funding. It is uncertain if the request for additional funding will be approved. As a part of this process the agencies will also present their FY17 budget requests.  
07/07/15 - No update available.  
06/24/15 - The legislature has passed the State budget, there are no additional funds beyond what was in the Governor’s Recommended budget, and approx. $6.4 mil that was provided in the Governor's budget is now uncertain making it more important for EOHHS and DHS to address a deficit in UHIP state funds. |
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| 346| Technical      | Code Quality- Error Handling, Broken Null Check- Integrated Eligibility Services (IES) The null check is broken since it will throw a Nullpointer itself. The reason is that a method is called on the object when it is null. It is likely that you used || instead of && or vice versa. || and && are shortcut logical operators. This means that if the left side is evaluated, and that is enough to establish the logical value of the whole expression, then the right side will not be evaluated. An application should not attempt to "make good" programming errors. | As per the industry best practices it is recommended the rule also defined Java class: net.sourceforge.pmd.rules.basic.BrokenNullCheck.                                                                 | 07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code (on HIX code base) review which is expected to be delivered by 09/18/15 to the State.  
06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report will be considered to fix after 06/30/15 The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte. |
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<tr>
<td>345</td>
<td>Technical</td>
<td>Code Quality - Error Handling, Boolean Instantiation - Integrated Eligibility Services (IES) CSG observed that programmers frequently created more than 2 instances. Instantiating Boolean objects must be avoided, as Boolean instances are immutable. &quot;new Boolean()&quot; will create a new Object every time. This allocates more memory (for all the objects), time for the allocation (when creating new Booleans) and time for the deallocation (when the objects are caught by the garbage collector), while giving you no advantages. The programmer can reference Boolean.TRUE, Boolean.FALSE, or call Boolean.valueOf() instead. The new Boolean always returns a new instance.</td>
<td>As per the industry best practices it is recommended and the rule is to defined Java class: <code>net.sourceforge.pmd.rules.basic.BooleanInstntiation: public class Foo { Boolean bar = new Boolean(&quot;true&quot;); // just do a Boolean bar = Boolean.TRUE; Boolean buz = Boolean.valueOf(false); // just do a Boolean buz = Boolean.FALSE; }</code></td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code (on HIX code base) review which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report will be considered to fix after 06/30/15 The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on March 18, 2015, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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<tr>
<td>344</td>
<td>Technical</td>
<td>Code Quality- Error Handling, Visibility Modifier- Integrated Eligibility Services (IES) CSG observed that in some places the Variables should have been made private and have accessory methods instead of having public variables in the class. Public methods are open for anyone to see. Public is the least restrictive access modifier in Java programming language and it’s not considered as a good practice to declare a field, method or class by default public because once we make it Public it’s very difficult to make any change in internal structure of classes as it affect all clients using it. Making class or instance variable public also violates the principle of Encapsulation, which is not good at all and affects maintenance badly. Instead of making variable public, you should make it private and provided public getter and setter.</td>
<td>Only static final members may be public; other class members must be private unless property protectedAllowed or packageAllowed is set. The most restrictive access level that makes sense for a particular member must be frequently used. Private must be used unless a programmer has a good reason not to. Avoid public fields except for constants. (This is not recommended for production code.) Public fields tend to link you to a particular implementation and limit your flexibility in changing the code.</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code (on HIX code base) review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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<td>343</td>
<td>Technical</td>
<td>Code Quality- Organization, Duplicate String literals- Integrated Eligibility Services (IES) CSG observed that in most of the modules The String literal appears repeated numerous times in the file. CSG found that &quot;String literal&quot; appeared more than 60 times in some of the artifacts. Code containing duplicate String literals must usually be improved by declaring the String as a constant field.</td>
<td>If a programmer is using string in several places, the programmer must avoid using it as a literal. Instead, create a string constant and use it. For example, best practice to code: The string literal “My Application” can be made as a Constant and used in the code: public static final String MY_APP = &quot;My Application&quot;; private void some Method(){ logger.log(MY_APP + e); ..... ..... logger.log(MY_APP + f); }</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code (on HIX code base) review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report will be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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| 342 | Technical       | Code Quality - Organization, Commented Code - Integrated Eligibility Services (IES)                                                                                                                         | Keeping commented-out code or unwanted code in production code is not recommended. Remove all commented-out to reduce clutter and reduce the maintainability of the code. Here are the main reasons why commented code is not recommended:  
  a) It raises more questions than it gives answers.  
  b) Everybody will forget very quickly how relevant the commented code is.  
  c) This is distracting when going down the code as it stops the flow of eyes.  
  d) The simple fact of understanding why the code was commented-out takes a lot of time. | 07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code (on HIX code base) review, which is expected to be delivered by 09/18/15 to the State.  
06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte. |
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<tr>
<td>341</td>
<td>Technical</td>
<td>Code Quality - Organization, Hardcoding-Integrated Eligibility Services (IES)</td>
<td>CSG observed that in some places the code was hardcoded. Hardcoding is considered difficult maintenance of business logic to store common values, which is not considered a good practice.</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/20/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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<tr>
<td>340</td>
<td>Technical</td>
<td>Code Quality - Organization, Logging levels - Integrated Eligibility Services (IES)</td>
<td>Using proper log levels in the code to resolve log file issues. The logger’s level should be changed to error level and when required replace by info or debug level.</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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<tr>
<td>339</td>
<td>Technical</td>
<td>Quality-Organization, E.printStackTrace Trace-Integrated Eligibility System (IES) E.printStackTrace prints to the console. Console buffer size is limited and there is always a high possibility to lose the Exception stack. E.printStackTrace is not a good way for productive code, since it is used for prototyping issues. This issue remains unresolved from the previous code review.</td>
<td>As per the Deloitte checklist and industry’s standard Logging should be implemented with the appropriate level when handling with a caught exception. Do not use printStackTrace(). Use logger.debug/error instead of E.printStackTrace, since it writes to the console, which slows down the application performance and has the potential to lose stack trace because of the buffer limitation of the console.</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/25/15 to Deloitte.</td>
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| 338 | Technical       | Quality-Organization, System.out.println (SOPs) - Integrated Eligibility System (IES)  
SOPs written on console/screen can negatively impact the performance of the application. In addition, the console buffer size is limited, which causes a high possibility to lose the Exception stack. SOPs are not a good practice to debug the application. Console processing is always time consuming/costly, which makes the system/application performance slow. | SOPs when required to log the exception should be replaced by logger.debug/error.                          | 07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State.  
06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte. |
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<tr>
<td>337</td>
<td>Technical</td>
<td>Quality- Organization, Class Size- Integrated Eligibility System (IES) There are several cases where the size of the class is more than 2,000 lines of code (LOC), which exceeds the industry best practices. Several classes were found and in IES code sample have with more than 30,000 LOC. Classes of this size should be refactored to improve code maintainability. This issue remains unresolved from the previous code review.</td>
<td>Files longer than 2,000 lines are cumbersome and should be avoided. The code should be refactored/restructure when it performs more than one purpose and more than once, outside of a loop.</td>
<td>07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State. 06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&amp;V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte.</td>
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</table>
| 336 | Technical | Quality- Comments - Integrated Eligibility Services (IES) There were insufficient comments on almost all of the class and methods reviewed. All source files should begin with a copyright comment header that lists the class name, version information, date, and copyright notice. This issue remains unresolved from the previous code review. | a) When modifying code, it is recommended to always keep the commenting related to it up to date, for example CSG noticed a number of change request numbers as comments without any description. Comments should be more descriptive, so that in maintenance it saves developers time and indicates the logic that has been added and for what purpose.  
b) At the beginning of every Method, it is helpful to provide standards indicating the Method’s purpose, assumptions, and limitations. These comments should be a brief introduction to help understand why the Method exists and what it can do. Comments should be used to explain the intent of the code.  
c) Prior to deployment, all temporary or extraneous TODO comments should be removed to avoid confusion during future maintenance work.  
d) Examine the code to determine if it should be rewritten. Developers should not rely on comments to rationally explain a complex section of code. Instead of documenting bad code, the code should be properly written. Performance should not be sacrificed to make the code simpler for human consumption. A balance must be maintained between performance and maintainability. For example, separate the method into multiple methods, and refactor the methods into | 07/31/15 - The issue encountered from the IES code will be re-assessed after the completion of 7th Bi-Monthly code on HIX code base review, which is expected to be delivered by 09/18/15 to the State.  
06/04/15 - Deloitte mentioned that the findings from the IES Code review #6 report would be considered to fix after 06/30/15. The reason for the delay is stated as Pilot, UAT and stretched for time to resolve identified enhancements and work requests. Deloitte will schedule a meeting with the USI Development team to discuss automated code review findings identified through SONAR. Submitted code review to the State on 03/18/15, discussed all the IV&V findings from Bi-Monthly Code review #5 (IES) to the State. Presented the code review #5 on 03/24/15 to Deloitte. |
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<tbody>
<tr>
<td>335</td>
<td>Finance</td>
<td>HSRI Funding for UHIP Costs FY16 HSRI has been 100% funded by Federal grants. States were not able to request additional Federal grants for State exchanges after 11/2014. At some point (unknown to CSG), Federal funds will run out. CSG assumes this may happen in FY16. The timing will be impacted by the constant stream of new project change requests and the decision to extend the development effort. Without some source of funds, HSRI and the RI State exchange cannot continue to operate. The entire scope of the UHIP project would be drastically altered if HSRI and the exchange ceased to exist. The Governor has proposed an assessment on health care premiums as a way to generate operating funds for HSRI. This is a controversial proposal that requires legislative approval.</td>
<td>There should be a budget and spending (cash flow and timing) plan for transitioning HSRI from a Federal funded agency to some other source of funding. In addition, any plan needs to account for currently committed UHIP costs as well as likely additional new upcoming UHIP costs. There should be a second plan to establish a UHIP budget/spending path forward if the state decides to abandon the state exchange.</td>
<td>09/30/15 - CMS approved the IAPD Update through December 2015 for DD; HSRI continues to closely monitor funding issues based on responses received from CMS and FNS. 09/09/15 - HSRI approved funding for Deloitte Contract Amendment 34, HSRI is closely monitoring their funding based on responses received from CMS and FNS. 08/20/15 - The State is working with Deloitte to determine the total cost of extending the development effort into 2016 and the portion of the cost that will be the responsibility of HSRI. At that point, HSRI can determine the impact on their remaining federal grant funds as well as their new state funding. 07/07/15 - HSRI still has some federal funds that can be used for development through 12/2015.</td>
</tr>
<tr>
<td>ID</td>
<td>Functional Area</td>
<td>Observations</td>
<td>Recommendations</td>
<td>Actions</td>
</tr>
<tr>
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<td>--------------</td>
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<td>---------</td>
</tr>
<tr>
<td>308</td>
<td>Requirements</td>
<td>Semi-annual Security Report There are several requirements (approx. 8 to 10) traced out from the RTM which are being marked as NOT MET, for example- Deloitte has not developed a security report, which is expected to be submitted every 6 months to the State. As per the requirement, the report must define all security-related activities, upcoming security initiatives, and long-range security plans. The state has not been provided with any such document from the DDI vendor for upcoming security plans, activities to protect the system and application appropriately.</td>
<td>The state should ask Deloitte to provide clarification or have the credit over to the State on the undeveloped reports and all such requirements, which are not being MET. Moving forward Deloitte must submit the security report every six months.</td>
<td>09/11/15 - The State tech lead stated that all the NOT MET appendix N items will be negotiated with Deloitte in the upcoming contract amendment. 08/20/15 - No update on the RTM items which were identified as NOT MET. 07/31/15, there are discussions planned which will take place between the State and Deloitte on all the NOT MET RTM requirements. 07/03/15 - Findings from the RTM Appendix N have been shared with the State leadership, NOT MET items will be negotiated towards the upcoming CA with the Deloitte. 06/04/15 - Findings from the RTM Appendix N have been shared with the State leadership, NOT MET items will be used as leverage during the CA 32 &amp; 33 contract negotiation. 04/03/15 - RTM review has been completed, the State</td>
</tr>
</tbody>
</table>
Appendix A: Production Defect Analysis

- A comparison of the open Production defects in JIRA from September 1, 2015 through September 30, 2015 (based on information in JIRA)

Table 4 - JIRA Defects without AM-PM Tickets

<table>
<thead>
<tr>
<th>Severity</th>
<th>08/31/2015</th>
<th>09/30/2015</th>
<th>+/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical</td>
<td>0</td>
<td>1</td>
<td>+1</td>
</tr>
<tr>
<td>High</td>
<td>0</td>
<td>3</td>
<td>+3</td>
</tr>
<tr>
<td>Medium</td>
<td>2</td>
<td>4</td>
<td>+2</td>
</tr>
<tr>
<td>Low</td>
<td>0</td>
<td>1</td>
<td>+1</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>9</td>
<td>+7</td>
</tr>
</tbody>
</table>

Table 5 - JIRA Defects with AM-PM Tickets

<table>
<thead>
<tr>
<th>Severity</th>
<th>08/31/2015</th>
<th>09/30/2015</th>
<th>+/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>High</td>
<td>26</td>
<td>42</td>
<td>+16</td>
</tr>
<tr>
<td>Medium</td>
<td>57</td>
<td>53</td>
<td>-4</td>
</tr>
<tr>
<td>Low</td>
<td>5</td>
<td>7</td>
<td>+2</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>102</td>
<td>+14</td>
</tr>
</tbody>
</table>

✓ The number of defects logged without AM-PM tickets increased slightly from the previous month
✓ The total number of production defects increased by 19% from the previous month
✓ Total production defects = 111
The following graph depicts critical and high defects created and closed weekly over the past six months.

Figure 1 - JIRA Defects with AM-PM Tickets, Past Six Months
Historical View of Critical and High Defect Aging

Table 6 - JIRA Open Production Defects Aging

<table>
<thead>
<tr>
<th>Days</th>
<th>Critical</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 90</td>
<td>APR 1</td>
<td>MAY 0</td>
</tr>
<tr>
<td>91 - 120</td>
<td>0 0 0 0</td>
<td>6 3 1 0</td>
</tr>
<tr>
<td>&gt;120</td>
<td>0 0 0 0</td>
<td>13 17 11 5 3 3</td>
</tr>
<tr>
<td>Total</td>
<td>1 0 0 0</td>
<td>22 21 12 5 5 6</td>
</tr>
</tbody>
</table>

Current View of all Open Defects as of September 30, 2015

Figure 2 - JIRA AM-PM Aging Open Defects
The following graph illustrates the number of open defects, the number of defects addressed within SIT, and the number of defects closed.

![Graph showing Work Requests Deployed by Month]

- The September M&O Release closed 15 defects; including SIT, a total of 23 defects were addressed
  - 9 non-data defect resolutions and 6 data defect resolutions were deployed into Production
  - 8 defects from SIT were addressed
  - 1 defect remains in an ‘open’ status
AM-PM is the trouble ticketing system; where deficiencies are reported from the service desk or a user enters a deficiency. AM-PM provides ticket management functionality and tracking against service level agreements.

![Problem Management Diagram](image1)

![Incident Management Diagram](image2)

**Figure 4 – AM-PM Trending Weekly**

- 1,208 incident tickets in a status other than closed; this is a decrease of 30% from the previous month
- The number of ‘resolved’ tickets continues to decrease; State is encouraged to continue reviewing
- There are 4 problem ticket open in AM-PM; the same number as last month
The following graph shows the top 5 Defect Tracks ranked by both Critical & High and Total Defects.

Note: From the previous reporting period, the represented tracks indicated with a “▼” have seen a net decrease in defects and the tracks with a “▲” have seen a net increase.

<table>
<thead>
<tr>
<th>Track</th>
<th>Critical &amp; High</th>
<th>Total Defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligibility (OPA, etc.)</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>Enrollment</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Notices</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Interfaces</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>SHOP</td>
<td>3</td>
<td>14</td>
</tr>
</tbody>
</table>

Figure 5 – Top Five Defect Tracks

- Total Defects last month compared to this month
  - Eligibility increased from 17 to 22
  - Enrollment increased from 12 to 20
  - Notices increased from 8 to 11
  - Interfaces decreased from 16 to 10
  - SHOP increased 8 to 14