Connect for Health Colorado

IV&V Bi-Monthly Report
Review #3

For Period of May 2013

Version 1.3
Submitted June 18, 2013

Revision History

Version No.	Date	Summary of Changes	Modified By
0.1	05/13/13	Initial draft	Yen Pham
1.0	6/4/13	Incorporated comments from Walkthrough Meeting	Yen Pham
1.1	6/18/13	Incorporated additional Security document; finalized report.	Yen Pham
1.2	6/20/13	C4HCO Consolidated comments	Gary Schneider
1.3	6/21/13	Incorporated comments and finalized report.	Yen Pham

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1.0 Introduction

This section provides an overview of the Connect for Health Colorado (C4HCO) and the scope of Independent Verification and Validation (IV&V) Services as it relates to the C4HCO.

1.1 Background

The Patient Protection and Affordable Care Act (PPACA) was signed into law on March 23, 2010. Following, in May 2011, the Colorado General Assembly passed Senate Bill 11-200, which established the Colorado Health Benefit Exchange (C4HCO), a public entity governed by a Board of Directors. C4HCO selected CGI as the Systems Integrator (SI). CGI commenced work on June 06, 2012. The Colorado Health Benefit Exchange (C4HCO) intends to increase access, affordability and choice for individuals and small employers purchasing health insurance in Colorado. The implementation of the Exchange System will be in accordance with federal guidance from Centers for Medicaid Systems, HIPPA and IRS 1075 regulations. The Exchange will also provide technical interoperability with, multiple federal, state and carrier systems required to operate individual and SHOP Exchanges. The design of the Exchange System will leverage several commercial-off-of-the-shelf (COTS) products plus modifications made by the System Integrator (SI), CGI. Additionally, the Service Center Solution will utilize Oracle RightNow. The following COTS products are as follows:

- hCentive: The product will enable eligibility determination, plan selection and enrollment capabilities.
- Healthation: The product will enable billing/accounts receivables.
- Oracle CRM: The product will provide the Customer Relationship Management functionality.

1.2 Purpose and Scope

C4HCO selected First Data to provide Independent Verification and Validation ("IV&V"). The IV&V consist of services to provide an independent assessment of deliverables and performance of the Systems Integrator (SI), and evaluate the 'Exchange' and its related Stakeholders. The main goal of IV&V is to assist the C4HCO Project by identifying technical, financial or scheduling deficiencies with the development of the 'Exchange' as early as possible in the life cycle to have time for corrective actions.

The IV&V Team will perform five bi-monthly interim Exchange reviews. The services will be provided in the timeframes as specified below:

Reviews #	Duration of Reviews	Approximate Timeframe	Status
1	7 weeks	November – January '13	Completed
2	4 weeks	March '13	Completed
3	4 weeks	May '13	Completed
4/5	5 weeks	July-August '13	Not Started

1.3 Approach and Methodology

In order to conduct the review of the C4HCO Project, the IV&V Team used the four-phased framework:

Phase 0 - Planning (Prior to day 1 of on-site activities)
- Conduct an initial meeting with C4HCO to discuss the current progress of the findings in the previous Review, and the recommended areas of focus for the upcoming Review.
- Develop a Review Schedule for the upcoming Review (e.g. on-site interviews, meetings, artifacts needed, follow-up Q&A and wrap-up meeting/debrief, etc.)
- Conduct meeting with C4HCO and CGI to discuss the Review Schedule.

Phase 1 - Artifacts and Meeting Set-Up (Prior to day 1 of on-site activities)
- Gather required materials from C4HCO and respective vendors (either on SharePoint or sent by C4HCO and respective vendors).
- Interviews and or/meetings scheduled by C4HCO and CGI.

Phase 2 - Conduct assessment
- Review artifacts and perform preliminary assessment. Request supporting materials as needed.
- Participate in meetings and/or conduct interviews to understand the current progress and clarification on artifacts received.

Phase 3 - Prepare the draft report
- Document current progress and findings
- Solicit clarification if needed.

Phase 4 - Submit final report
- Submit draft report to C4HCO for review.
- Obtain C4HCO's comments.
- Incorporate C4HCO's comments and submit final report.

- Conduct meeting to present major findings/recommendations to C4HCO leadership.

1.4 Roles and Responsibilities

The following table documents the roles and responsibilities associated with the development, review and approval of the deliverable.

Deliverable Roles and Responsibilities

ROLE	PERSON	RESPONSIBILITY
First Data Deliverable Owner	Yen Pham	Responsible for the Bi-Monthly Review deliverable.
Colorado Health Benefit Exchange IV&V Lead	Gary Schneider	Responsible for feedback, and approval of the deliverable.

2.0 Executive Summary

The Exchange is a multi-faceted project that will require a number of iterations to evaluate the full project. The previous reviews focused on a subset of project management, system development lifecycle, organization and business operations, both for C4HCO and CGI. Additionally, a previous review included an evaluation of the relationship between C4HCO and Stakeholders. The current review focuses on a subset of documents for the Federal Design Deliverables Review as directed by Connect for Health Colorado.

This section provides an overview of the bi-monthly review conducted by the IV&V Team. This assessment covers the period of May 2013 and it represents a point in time. The IV&V Team compared the documents against the CMS Templates (reference Appendix A). In some instances, there were deviations in the methodologies and documents in comparison to the CMS Templates. This is variance is due to the incremental development approach that is utilized on the project being inconsistent with the implied waterfall development approach as documented in the CMS templates. Additionally, there are several documents still in draft however, this is consistent with the current status of the project. The details of the review are contained in section 3.1 Detail of Analyzed Area.

The report does not represent the outcome of or the measurement of the Exchange. The IV&V Team typically has a cutoff point of one week prior to when the report draft is due. However, if significant new information is available, it is incorporated into the final report.

The areas of focus were:

System Security Plans	Test Plans
Requirements Documents	Contingency Plans
Overall Release Schedule	Database Design Documents
Release Plan	Interface Control Documents
System Design Documents	

3.0 Assessment and Recommendations

This section includes the assessment and recommendations identified as part of the Bi-Monthly Review effort. Each area of concern is categorized using the following rating:

Symbol	Rating	Description
🟢	Met requirement	All the processes, as identified, are working within CMS standards and were reported accurately. Though there may be some issues, risks or areas of potential improvement, they do not affect the project's success.
🟡	Met requirement with inaccuracies	Review determined that relevant CMS standards meet, but inaccuracies were found in the data, processes, incomplete document, or end reporting used in the demonstration of compliance. There may be some issues, risks or areas of potential improvement; they could affect the project's success.
🔴	Requirement not met	Element reviewed did not meet CMS compliance and may require immediate attention and/or escalation to senior management. There are some issues, risks or areas of potential improvement; they do affect the project's success.

3.1 Details of Analyzed Areas

Status	No.	Area	Sub-Area	Assessment and Recommendations
🟢	1	**Security**	**System Security Plan** (*Version 0.4 dated 1-9-2013*)	**Assessment** First Data assessed the System Security Plan. First Data's assessment are as follows:

Status	No.	Area	Sub-Area	Assessment and Recommendations
				• The System Security Plan accurately describes the system and identifies the appropriate security level. • The System Security Plan defines the appropriate security controls for each family area. • The Compliance Checklist was accurate and scored appropriately. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			MARS-E Trace 0.3 to CGI (*SharePoint modified date 5-29-2013)*	**Assessment** First Data assessed the MARS-E Trace 0.3 to CGI spreadsheet. First Data's assessment are as follows: • The MARS-E Trace 0.3 CGI spreadsheet accurately documents the applicability of all of the security requirements. • The spreadsheet appears complete and has at least one applicable requirement for each part of the system. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Use Case to MARS-E mapping v2	**Assessment** First Data assessed the Use Case to MARS-E mapping spreadsheet.

Status	No.	Area	Sub-Area	Assessment and Recommendations
			(*SharePoint modified date 5-29-2013*)	First Data's assessment are as follows: • The Use Case to MARS-E mapping spreadsheet identifies the Use Cases will address which security requirements. • The spreadsheet is not yet complete but provides a framework to ensure coverage of all of the requirements. **Recommendation** 1. CGI should continue to complete the Use Case to MARS-E mapping as the remaining releases are completed.
			Privacy Impact Assessment (PIA) (*Version 2.4 dated 5-30-2013*)	**Assessment** First Data assessed the Privacy Impact Assessment document. First Data's assessment are as follows: • The PIA is consistent with the information documented in the System Security Plan. • The PIA is not complete as some information is currently being determined. Specifically, some elements within VI; meeting the Privacy Requirements of the Final Rule including Agreements with non-Exchange Entities, Accountability and Governance remain to be determined. **Recommendation** 1. CGI should continue to complete items identified as 'TBD' as the remaining releases are completed.

Status	No.	Area	Sub-Area	Assessment and Recommendations
			Safeguard Procedures Report (SPR) (*Version 1.0 dated 8-30-2012*)	**Assessment** First Data assessed the Safeguard Procedures Report. First Data's assessment are as follows: • The SPR is a draft that has not been updated since August 30, 2012; it is due to be updated by August 1, 2013, in preparation for the Operational Readiness Review. • The identification of what constitutes FTI has been a point of discussion throughout the system design process due to evolving requirements from the IRS. • As noted in the Database area, the IRS currently specifies that Federal Tax information (FTI) data needs to be more protected than other data and does not recommend comingling FTI with other system data. CGI's current approach is to protect all system data including FTI with a higher level of security. However, the lack of separation eliminates the redundant user security (authentication and authorization) and separate servers and environments (physical or logical). The approach should be documented in the SPR and verified with the IRS. **Recommendation** 1. CGI and Connect for Health Colorado should continue to work with CMS and IRS staff to clarify the specific requirements particularly around FTI to ensure compliance in time for the October 2013 launch. These FTI requirements should be clarified by mid-July. 3. CGI and Connect for Health Colorado should update the SPR as appropriate with the completion of the remaining releases.

Status	No.	Area	Sub-Area	Assessment and Recommendations
			C4HCO_ACA_SSP_ Workbook_Baseline FDDR (*Version 1.2 dated 6-6-2013*)	**Assessment** First Data assessed the ACA SSP Workbook Baseline document. First Data's assessment are as follows: • The Workbook contains a broad and comprehensive security controls for the Exchange. The following areas were covered: 　○ Access Control- Technical 　○ Awareness and Training- Operational 　○ Audit and Accountability- Technical 　○ Security Assessment and Authorization- Management 　○ Configuration Management- Operational 　○ Contingency Planning- Operational 　○ Identification and Authentication- Technical 　○ Incident Response- Operational 　○ Maintenance- Operational 　○ Media Protection- Operational 　○ Physical and Environmental Protection- Operational 　○ Planning- Management 　○ Personal Security- Operational 　○ Risk Assessment- Management 　○ System and Services Acquisition- Management 　○ System and Communications Protection- Technical 　○ System and Information Integrity- Operational 　○ Project Management- Management 　○ Additional Controls required by IRS Publication 1075 Protections of FTI in Virtual Environment • There are a few areas that are currently being developed but the Workbook provides a framework that satisfies the

Status	No.	Area	Sub-Area	Assessment and Recommendations
				requirements for an Information Security Program as specified in the Centers for Medicare and Medicaid Services (CMS) Minimum Acceptable Risk Standards for Exchanges (MARS-E) requirements. **Recommendation** 1. CGI should continue to complete the Workbook as the remaining releases are complete to ensure all appropriate security measures are in place.
🟡	2	**Requirements**	**Requirements Document** (*SharePoint modified date 5-24-2013*)	**Assessment** First Data assessed the Requirements. First Data's assessment are as follows: • The Requirements document consists of an export of the requirements inclusive of updates made through the established change management processes. The Requirements are accurate, consistent and inclusive of all approved change requests. • The Requirement Document does not include the FDDR documents mapped to the requirements as necessary for backward traceability. • The Project utilizes a requirements tracking tool (ALMComplete) however, full reporting capabilities will not be available within the tool until June 2013. • The absence of a full backward traceability report may be acceptable because:

Status	No.	Area	Sub-Area	Assessment and Recommendations
				o The Project utilizes an incremental development approach that does not have a singular design document that is complete at the time of the FDDR but has multiple releases that are in various stages of completion. o The Project has mapped requirements to certain CGI deliverables including the Front-Back Office HLD V2.1 and most importantly, mapped to all of the Use Cases for the entire design of the system which are the basis for each increment of the detailed design. o Requirements have been mapped to Test Cases with each completed release as it is promoted into the testing environments. The project will have mapped the appropriate requirements through Release 0.4 in June, 2013. **Recommendation** 1. CGI should consider providing a partial backward traceability report as part of the FDDR documentation. These could include: • Functional requirements to Test Scenarios
🟢	3	**Release**	**C4HCO Release Plan 1_1 03192013** (*Version 1.1 dated 04-23-2013*)	**Assessment** First Data assessed the Release Plan. First Data's assessment are as follows: • The document provides a clear high-level description of the release process and timelines for the delivery of the exchange software components. Major, Minor and Critical Releases are

Status	No.	Area	Sub-Area	Assessment and Recommendations
				classified to easily identify each release. • The document provides a clear depiction on how defects are handled in the release process. • The document does not identify the Release Management and Release Numbering process but it is described in the C4HCO Development Release Plan_51013. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Development Release Plan_051013 (*Version 1.1 dated 03-19-2013*) **C4HCO Release Schedule to Go-Live (v17)** (*Version 17*)	**Assessment** First Data assessed the Release Development Plan and the C4HCO Release Schedule to Go-Live. First Data's assessment are as follows: • The document provides clear overview of the Release strategy for the implementation of the Exchange solution and its components. • The document provides detail assumptions, constraints and risks. There is extensive coordination between the various partners, which could affect the October 1, 2013 launch. • The schedule provides a detail overview of the contents delivered for each Release. The contents of Release 0.5 and Release 0.6 are currently being finalized. • The tight timelines, along with a substantial amount of coordination between various partners leaves minimal room for any delays.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				• The timeline for System Test and User Acceptance Test is tight and leaves minimal room to handle significant defects. • Test automation has been utilized which should assist with executing more scenarios in a given timeframe. **Recommendation** 1. As planned, CGI and C4HCO should increase resources to the Testing Team to assist with the testing effort.
🟡	4	**System Design**	**System Design Document** (*Version 1.3 dated 5-23-2013 in SharePoint*)	**Assessment** First Data assessed the System Design Document. First Data's assessment are as follows: • The System Design Document accurately describes the system and follows the form and content required by the CMS template, System Design Document Version 3.0. • CGI is incrementally completing the design of the system. The design has been documented across multiple deliverables but will be documented as the design evolves through remaining releases. Version 1.3 of the document is not yet complete but the other CGI design deliverables (e.g. DEL19 Software Delivery to Integration Test for Iterations 16-20 and DEL20 Software Delivery to Integration Test for Dental and Vision) have been completed as required. The document will be updated as subsequent releases are completed. • The document references several other documents that are not currently included in Gate review Package. These are:

Status	No.	Area	Sub-Area	Assessment and Recommendations
				◦ Database High Availability • Section 15 of the document contains the CMS requirements for the section and states that all documents will be delivered to CMS as part of this gate review. The following is not included as part of the package. These are: ◦ Data Dictionary ◦ CMS Section 508 Product Assessment (which is currently being performed under CU's accessibility contract) **Recommendation** 1. CGI should include all referenced documents in the CMS gate review package as appropriate. 2. CGI should include a description of the required document in Section 15 and describe why these are not being included.
			DEL09 C4HCO Capacity Management Plan 5-20-2013_FINAL (*Version 1.0 dated 5-20-2013*)	**Assessment** First Data assessed the Capacity Management Plan. First Data's assessment are as follows: • The Capacity Management Plan documents the lifecycle of managing the overall capacity of the system from initial design, through testing and operations. The Plan is a complete document and meets the requirements for a Capacity Management Plan, • The Plan identifies several testing methods for determining if the software will perform as predicted in the capacity models

Status	No.	Area	Sub-Area	Assessment and Recommendations
				including peak load, increasing load and tests that run at peak load for an extended duration. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO hCentive Interfaces (*Version 0.2 dated 5-nn-2013)*	**Assessment** First Data assessed the C4HCO hCentive Interfaces. First Data's assessment are as follows: • The document accurately describes the hCentive Interfaces and is consistent with the Interface control documents as well as the interface requirements. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Healthation Interfaces (*Version 0.7 dated 5-nn-2013)*	**Assessment** First Data assessed the C4HCO Healthation Interfaces. First Data's assessment are as follows: • The document accurately describes the hCentive Interfaces and is consistent with the Interface control documents as well as the interface requirements.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				Recommendation First Data does not have any specific recommendations for this document at this time.
			C4HCO CONOPS v3.3 (*Version 3.3 dated 5-9-2013*)	**Assessment** First Data assessed the C4HCO CONOPS Document. First Data's assessment are as follows: • The CONOPS document is a complete an accurate description of the planned operations of the Colorado Exchange. The CONOPS is a point in time document that is consistent at a high level with the more detailed back office procedures. The document was originally created on 4-30-2013 and has been updated several times thereafter. Subsequent updates will be completed as required. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Design Overview Hyland – Content Management (*Version 0.5 dated 10-26-2012*)	**Assessment** First Data assessed the C4HCO Design Overview Hyland – Content Management document. First Data's assessment are as follows: • The C4HCO Design Overview Hyland accurately describes the design of the content management system. • External documents are reference throughout the document

Status	No.	Area	Sub-Area	Assessment and Recommendations
				that are in development team folders or other SharePoint directories. This is appropriate for a portion of the design document even though the external documents are not included as part of the overall system design. **Recommendation** First Data does not have any specific recommendations for this document at this time.

			C4HCO Service Portal Solution Overview (*Version 0.2 dated 4-2-2013*)	**Assessment** First Data assessed the C4HCO Service Portal Solution Overview document. First Data's assessment are as follows:
				
				• The document is a draft and not yet complete.
				• The level of detail in the document is not consistent with the amount of the design and development work that has been completed. Specifically:
				  o Release 0.2 – 0.4 have been completed and represent a majority of the functionality within the system.
				  o Most of the details of the business process identified in the table lack a description of automated or manual or if they are subject to an SLA in the Section 12, Task Inventory.
				• The Service Portal Solution Overview document needs to be completed over time as the functionality is designed with subsequent releases. Revisions made as part of subsequent release to the previous functionality and the number of

Status	No.	Area	Sub-Area	Assessment and Recommendations
				releases make it difficult to keep synchronized and updated except of on periodic basis. **Recommendation** 1. Connect for Health Colorado should continue to update the C4HCO Service Portal Solution Overview as the remaining application releases are completed.
			C4HCO Software Configuration Management Plan (*Version 0.3 dated 9-28-2012*)	**Assessment** First Data assessed a subset of the System Design Documents. First Data's assessment are as follows: • The document is a draft and not yet complete. • The document contains superfluous text including reviewer comments • The document does not include sections for or references to the detailed processes and procedures necessary to manage the configuration of the system. These procedures will be provided to C4HCO in DEL 38 that is due on 7/30/13. **Recommendation** 1. CGI should remove all comments and accept all changes in the document prior to submission to CMS. 2. CGI should explicitly reference the external operations documents that will document detailed configuration management procedures.
			C4HCO User Access	**Assessment**

Status	No.	Area	Sub-Area	Assessment and Recommendations

			and Permissions Interface Functional Specification (*Version 1.11 dated 5-1-2013*)	First Data assessed the C4HCO User Access and Permissions Interface Functional Specification document. First Data's assessment are as follows:
				
				• The document is still a draft even though the version may indicate that a final document was produced. The content of the document must be consistent with other security deliverables and work products (like the Privacy Impact Assessment) and will need to be updated as those are produced.
				• The document should but does not include:
				    ○ Assumptions, Risks and Constraints
				    ○ All page level assessments for the applicable security and privacy categories
				
				Recommendation
				1. CGI should continue to update the document to include the available assumptions risks and constraints.
				2. CGI should complete the document as the remaining security work products are completed.

			Front Back Office HLD (*Version 2.2 dated 5-7-2013*)	**Assessment** First Data assessed the Front Back Office HLD document. First Data's assessment are as follows: • The deliverable fully documents requirements mapped to business process and use cases. • The document provides an thorough cross reference of the

Status	No.	Area	Sub-Area	Assessment and Recommendations
				requirements to COTS or packaged products **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Exchange Technical Architecture Diagrams 2013-03-21 (*SharePoint modified date 3-21-2013*)	**Assessment** First Data assessed the C4HCO Exchange Technical Architecture Diagrams document. First Data's assessment are as follows: • The file contains only three graphics however; many other diagrams exist in the other system design documents. **Recommendation** 1. CGI should add the relevant diagrams to the SSD Architecture Drawings.
			System Description (*SharePoint modified date 5-23-2013*)	**Assessment** First Data assessed the System Description document. First Data's assessment are as follows: • The organization of the document is thorough although it appears to be a draft because many of the sections are brief and do not fully describe the diagrams nor fully document each area. • Many if not all of the graphics depicting the system design

Status	No.	Area	Sub-Area	Assessment and Recommendations
				should be added to the C4HCO Exchange Technical Architecture Diagrams 2013-03-21 • Only a few areas do not have but may benefit from the inclusion of diagram if available. These are: ○ Information Architecture ○ Interface Architecture ○ Technical Instances (environments) **Recommendation** 1. CGI should complete the document as part of the remaining releases of system functionality.
🟢	5	**Test**	**Test Plan** (*Version x2.5 dated 03-11-2013*)	**Assessment** First Data assessed the Test Plan. First Data's assessment are as follows: • The document provides clear overview of the testing activities for the Exchange solution and its components. • It describes the various Test Phases and Test Types. Additionally, it describes how the traceability of the modules and data. • It does not identify any security or privacy issues associated with the test environment regarding PII. • Test Case-to-Requirements Traceability Matrix does not exist but the traceability for this project is handled within the ALMComplete Test Management Tool.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				Recommendation 1. CGI should identify any security or privacy issues associated with the test environment regarding PII; if not applicable then it should be stated in the document.
🟡	6	Contingency	**CGI Phoenix Data Center COOP - DRAFT sanitized.pdf** (*Version x.x*)	**Assessment** First Data assessed the CGI Phoenix Data Center draft document. First Data's assessment are as follows: • The document provides a good overview of the CGI Phoenix Data Center. • The Data Center is compliant with the Federal Preparedness Circular 65 and the NIST 800-34, Contingency Planning Guide for Information Technology Systems **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Continuity Contingency Plan Document scope v2_052413.ppt	**Assessment** First Data assessed Continuity Contingency Plan Document scope. First Data's assessment are as follows: • The remaining documents are currently in development: o Business Continuity Plan (BCP) o Front Office / Service Center Staff (Colorado Springs,

Status	No.	Area	Sub-Area	Assessment and Recommendations
				CO)
				o Back Office Staff
				o (Colorado Springs, CO)
				o Operations Support Staff
				o (CGI Denver Office location)
				o Oracle CX Support Staff
				o Connect for Health Colorado Staff
				o (Denver, CO)
				o IT/DR Contingency Plan (ITCP / DRP)
				o Connect for Health Colorado Exchange
				o (hCentive, Healthation, Thunderhead, RightFax, Hyland OnBase, …)
				o Disaster Recovery Plan Oracle CX (RightNow)
				o Continuity of Operations Plan (COOP)
				o Phoenix Data Center (Host site for Exchange)
				o CGI Office (Operations Support staff location)
				o Service / Contact Center (Colorado Springs, CO)
				o CX Hosting Site (Chicago, IL)
				Recommendation
				1. CGI should assess the impact to determine when these documents need to be completed. Additionally, assign estimated completion dates.
				2. CGI should complete the documents as the remaining releases are completed.
🟢	7	**Database**	**Database Design**	**Assessment**

Status	No.	Area	Sub-Area	Assessment and Recommendations
			Document (*Version 2.0 dated 5-24-2013)*	First Data assessed the Database Design Document. First Data's assessment are as follows: • The Database Design Document accurately describes the system and follows the form and content required by the CMS template, Database Design Document Version 2.0. • The database identification diagram on page 3 and subsequent description does not describe or reference what database integration is needed or how integration or interfaces between databases would occur. This is described in the C4HCO System Design Document. • IRS currently specifies that Federal Tax information (FTI) data needs to be more protected than other data and does not recommend comingling FTI with other system data. CGI's current approach is to protect all system data including FTI with the higher level of security. However, the lack of separation eliminates the redundant user security (authentication and authorization) and separate servers and environments (physical or logical). C4HCO will need to confirm that this approach is sufficient to meet the IRS requirements. • A Data Dictionary inclusive of the COTS product databases is not part of the Database design. This is a required part of Section 15 in the CMS Template for the C4HCO System Design Document. This may be appropriate since the data elements are part of COTS products. However, many of the same data elements will be part of the data warehouse and the data warehouse is a custom component. The complete design is

Status	No.	Area	Sub-Area	Assessment and Recommendations
				scheduled to be complete in June 2013. **Recommendation** 1. CGI should state that the data warehouse data dictionary will include many of the COTS database elements when the data warehouse design is completed. This is scheduled for completion on 6-14-2013. 2. CGI should include a reference to the interface or integration specifications between databases to the C4HCO System Design Document.
			Data Warehouse Planning and Architecture Document (*Version 1.0 dated 2-7-2013*)	**Assessment** First Data assessed the Data Warehouse Planning and Architecture Document. First Data's assessment are as follows: • Section 5.13 Security Controls does not identify auditing and logging as a Security Control. This is necessary if the Data Warehouse will contain Federal Tax Information (FTI) to record which records were accessed and by whom. • Much of the data that will be used to populate the Data Warehouse will originate in the Service Portal. The Service Portal data base design is scheduled for completion in June 2013. • Additional Security may be necessary to secure the resultant data from unauthorized export. **Recommendation**

Status	No.	Area	Sub-Area	Assessment and Recommendations
				First Data does not have any specific recommendations for this document at this time.
			EXCH_AllTablesDetails_05_10_2013 (*Version 10.05.2013 09:58:09 dated 5-10-2013*)	**Assessment** First Data assessed the EXCH_AllTablesDetails_05_10_2013 Document. First Data's assessment are as follows: • The All Tables Details is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. • It is difficult to determine if the data model is consistent with the COTS products since the COTS data models are not available. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			PLANMGMT_AllTablesDetails_05_10_2013 (*Version 10.05.2013 04:24:00 dated 5-10-2013*)	**Assessment** First Data assessed the PLANMGMT_AllTablesDetails_05_10_2013 Document. First Data's assessment are as follows: • The All Tables Details is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. • It is difficult to determine if the data model is consistent with the COTS products since the COTS data models are not

Status	No.	Area	Sub-Area	Assessment and Recommendations
				available. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Logical Data Model (*SharePoint modified date 5-14-2013*)	**Assessment** First Data assessed the Database Design Document. First Data's assessment are as follows: - The Logical Model was compared with the Physical Model as well as the other defined database structures. - The Logical Data Model is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. - It is difficult to determine if the data model is consistent with the COTS products since the COTS data models are not available. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			C4HCO Logical Data Model - Plan Management (*SharePoint*	**Assessment** First Data assessed the Database Design Document. First Data's assessment are as follows:

Status	No.	Area	Sub-Area	Assessment and Recommendations
			modified date 5-14-2013)	• The Logical Model was compared with the Physical Model as well as the other defined database structures. • The Logical Data Model is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. • It is difficult to determine if the data model is consistent with the COTS products since the COTS data models are not available. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			EXCH_Physical_Model_05_10_2013 dated (*SharePoint modified date 5-10-2013)*	**Assessment** First Data assessed the Database Design Document. First Data's assessment are as follows: • The Physical Model was compared with the Logical Model as well as the other defined database structures. • The Physical Model is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. • It is difficult to determine if the Physical Model is consistent with the COTS products since the COTS Physical Model are not available. **Recommendation**

Status	No.	Area	Sub-Area	Assessment and Recommendations
				First Data does not have any specific recommendations for this document at this time.
			PLANMGMT_Physical_Model_05_10_2013 (*SharePoint modified date 5-10-2013*)	**Assessment** First Data assessed the Database Design Document. First Data's assessment are as follows: • The Physical Model was compared with the Logical Model as well as the other defined database structures. • The Physical Model is internally complete and consistent with the relevant and necessary foreign keys identified and appropriate normalization. • It is difficult to determine if the Physical Model is consistent with the COTS products since the COTS Physical Model are not available. **Recommendation** First Data does not have any specific recommendations for this document at this time.
🟢	8	Interfaces	Interface_Control_Document_Carrier_052113 (*Version 2.0 dated 05-nn-2013 Updates for Final*)	**Assessment** First Data assessed the Interface Control Document Carrier. First Data's assessment are as follows: • The document accurately describes the Carrier Interfaces and is consistent with the Interface Functional Specification documents.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				Recommendation First Data does not have any specific recommendations for this document at this time.
			Interface_Control_ Document_FDSH_0 52313 (*Version 2.0 dated 05-24-2013 Final*)	**Assessment** First Data assessed the Interface Control Document Federal Data Hub Services (FDSH). First Data's assessment are as follows: • The document accurately describes the FDSH Interfaces and is consistent with the Interface Functional Specification documents. • At this time, the performance details are still being developed. • At this time, the individual services are still being developed and the BSDs are updated with each sprint. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Interface_Control_ Document_Financia l_052313 (*Version 2.0 dated 05-24-2013 Final*)	**Assessment** First Data assessed the Interface Control Document Financial. First Data's assessment are as follows: • The document accurately describes the Financial Interfaces and is consistent with the Interface Functional Specification documents.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				• The bank vendor has only recently been selected therefore the specific details are still being developed. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Interface_Control_ Document_OIT_052 313 (*Version 2.0 dated 05-24-2013 Final*)	**Assessment** First Data assessed the Interface Control Document Office of Information Technology (OIT). First Data's assessment are as follows: • The document accurately describes the OIT Interfaces and is consistent with the Interface Functional Specification documents. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Interface_Control_ Document_OOPC_0 52213 (*Version 1.0 dated 05-24-2013 Initial Version for CMS*)	**Assessment** First Data assessed the Interface Control Document Out of Pocket Calculator (OOPC). First Data's assessment are as follows: • The document accurately describes the OOPC Interfaces and is consistent with the Interface Functional Specification documents.

Status	No.	Area	Sub-Area	Assessment and Recommendations
				Recommendation First Data does not have any specific recommendations for this document at this time.
			Interface_Control_Document_Provider_Directory_052213 (*Version 1.0 dated 05-24-2013 Initial Version for CMS*)	**Assessment** First Data assessed the Interface Control Document Provider Directory. First Data's assessment are as follows: • The document accurately describes the Provider Directory Interfaces and is consistent with the Interface Functional Specification documents. **Recommendation** First Data does not have any specific recommendations for this document at this time.
			Interface_Control_Document_SERFF_052213 (*Version 2.0 dated 05-xx-2013 Final*)	**Assessment** First Data assessed the Interface Control Document SERFF. First Data's assessment are as follows: • The document accurately describes the SERFF Interfaces and is consistent with the Interface Functional Specification documents. **Recommendation** First Data does not have any specific recommendations for this document at this time.

Status	No.	Area	Sub-Area	Assessment and Recommendations

4.0 Appendix

A. CMS Templates

#	Template Name	Version
1	System Security Plan (SSP)	Version 3.1 dated May 7, 2009
2	Database Design Document	Version 2.0 No Date
3	Requirements Document	Version 4.0 No Date
4	System Design Document	Version 3.0 No Date
5	Contingency Plan	Version 1.0 dated November 14, 2008
6	Interface Control Document	Version 2.0 No Date
7	Release Plan	Version 2.0 No Date
8	Test Plan	Version 2.0 No Date