

## Office of the Chief Financial Officer

New Core Project: Release 3 Project Management

**Information Systems Audit Division Washington, DC** 

Audit Report Number: 2015-DP-0006

June 12, 2015



To:

Joseph I. Hungate III, Deputy Chief Financial Officer, F

lanh T. Kle

From:

Hanh T. Do, Director, Information Systems Audit Division, GAA

Subject:

Weaknesses in the New Core Project Were Not Adequately Addressed

Attached is the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) final results of our audit of project management for release 3 of the New Core Project.

HUD Handbook 2000.06, REV-4, sets specific timeframes for management decisions on recommended corrective actions. For each recommendation without a management decision, please respond and provide status reports in accordance with the HUD Handbook. Please furnish us copies of any correspondence or directives issued because of the audit.

The Inspector General Act, Title 5 United States Code, section 8M, requires that OIG post its publicly available reports on the OIG Web site. Accordingly, this report will be posted at <a href="http://www.hudoig.gov">http://www.hudoig.gov</a>.

If you have any questions or comments about this report, please do not hesitate to call me at 202-402-8147 or Dorothy Bagley at 202-402-8139.

Attachment



Audit Report Number: 2015-DP-0006

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Weaknesses in the New Core Project Were Not Adequately Addressed

## Highlights

## What We Audited and Why

We audited the U.S. Department of Housing and Urban Development's (HUD) New Core Project as part of the internal control assessments required for the fiscal year 2015 financial statement audit under the Chief Financial Officer's Act of 1990. Our objective was to assess the status of the project and to determine whether the New Core Project team complied with Federal regulations and departmental project management processes. This audit is the first of several to be completed on the New Core Project implementation.

## What We Found

Weaknesses in the New Core Project were not adequately addressed. HUD did not follow its own agency policies and procedures, the policies established for New Core, or best practices. HUD will become the first cabinet-level agency to use a Federal shared service provider. The transfer of its financial management to a shared service provider has been widely publicized. HUD's previous attempt to use a commercial shared service provider to start a new financial management system failed after spending more than \$35 million. Our review of the previous project determined that Office of the Chief Financial Officer did not properly plan and manage its implementation of that project. If HUD is not successful in this implementation, it could reflect negatively on Office of Management and Budget's mandate to use Federal shared service providers. The weaknesses identified in this report relate to requirements and schedule and risk management. These areas are significant to the project plan, and the effectiveness with which HUD manages them is critical to the project's success.

## What We Recommend

We recommend that the Chief Financial Officer (1) ensure that requirements for the functional areas that were not part of the shared service provider's standard configuration are completed and approved before beginning design and development, (2) reevaluate the October 1, 2015, start date for release 3, (3) modify the project schedule and dashboard to identify the critical path, (4) establish a contingency plan, (5) ensure that all risks are fully mitigated before closing, and (6) address the remaining weaknesses identified.

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## Background and Objective

The U.S. Department of Housing and Urban Development (HUD) has been modernizing its legacy financial management system since fiscal year 2003. The previous project, the HUD Integrated Financial Management Improvement Project, was intended to replace two of the applications currently used for core processing. In March 2012, however, HUD stopped work on the project and later canceled it after spending more than \$35 million. In the fall of 2012, the New Core Project was created to implement a new core financial system.

On March 25, 2013, the Office of Management and Budget (OMB) issued memorandum M-13-08, which mandates the use of Federal shared service providers to modernize core accounting or mixed systems. HUD conducted an alternatives analysis and determined that U.S. Department of the Treasury's Bureau of Fiscal Services' Administrative Resource Center (ARC), formerly the Bureau of Public Debt, was the best option among the available Federal shared service providers. HUD signed an interagency agreement on July 30, 2013, to migrate its financial transactions and systems to ARC. Specifically, ARC will support (1) funds management, (2) purchasing, (3) accounts payable, (4) accounts receivable, (5) cash management, (6) cost accounting, (7) the core financial system, (8) the general ledger, (9) financial reporting, (10) grants management, and (11) loans management.

The project includes the following four phases:

- Phase 1 is separated into four different releases. Each release defines a particular function that will be transferred to Treasury's shared services platform as follows:
  - Release 1 transferred the travel and relocation functions to Treasury on October 1, 2014.
  - Release 2, transferring time and attendance, was implemented on February 8, 2015.
  - Release 3 will cover the migration of the core financial services owned by the
    Office of the Chief Financial Officer (OCFO). This release includes the
    migration of accounting system services associated with budget execution,
    accounting, finance, data warehouse reporting, and an interface solution. Release
    3 is scheduled for implementation in the fourth quarter of fiscal year 2015 or the
    first quarter of fiscal year 2016.
  - Release 4 will address HUD's grant and loan accounting systems. Details
    regarding this release have not been finalized, and there is no scheduled date for
    implementation.
- Phase 2 of the project will address managerial cost accounting, budget formulation, and a fixed assets system.
- Phases 3 and 4 of the project will address the consolidation of the Federal Housing Administration and Government National Mortgage Association as well as the migration of the functionality of HUD's Line of Credit Control System.

Details regarding phases 2, 3, and 4 have not been finalized, and there are no scheduled dates for implementation.

New Core resources come from various organizations and funding sources. New Core has a three-part budget development that includes the following:

- Modernization and enhancement funds from the Working Capital Fund Information Technology (IT) portfolio,
- Full-time employees from many sources, and
- Operations and maintenance salaries and expenses.

Funding delays and cuts have impacted modernization and enhancement activities. As a result, money appropriated in fiscal year 2014 was not fully available. As of February 2015, HUD had received only about \$4.5 million of the \$10 million budgeted. In addition, congressional cuts to fiscal year 2015-16 funding resulted in the elimination of all modernization and enhancement funding, including the \$15.9 million budgeted for New Core. A significant amount of the operations and maintenance funding requested was also eliminated, resulting in the \$16.6 million requested for New Core being transferred to the salaries and expenses budget. As a result, New Core is pursuing \$18 million, the \$10 million budgeted, and an additional \$8 million reallocated from other projects to cover current agreement and pending activity costs through March 2016.

This audit was conducted as a component of the internal control assessments required for the fiscal year 2015 financial statement audit under the Chief Financial Officer's Act of 1990. Our objective was to assess the status of the project and to determine whether the New Core Project team complied with Federal regulations and departmental project management processes. This audit is the first of several to be completed on the New Core Project implementation.

## Results of Audit

# Finding: Weaknesses in the New Core Project Were Not Adequately Addressed

Weaknesses in the New Core Project were not adequately addressed. Specifically, (1) HUD may have rushed release 3 system design and development activities, (2) schedule management deficiencies may impact the timeliness and quality of the release 3 solutions, and (3) risk management weaknesses may have misrepresented the project's status. These conditions resulted from noncompliance with HUD's own IT project management policy and best practices. HUD's failure to successfully implement New Core could result in a system that may not meet HUD's needs. In addition, HUD's transfer of its financial management to a shared service provider has been widely publicized. If HUD is not successful in this implementation, it could reflect negatively on OMB's mandate to use Federal shared service providers to modernize core accounting or mixed systems.

## System Design and Development Activities May Have Been Rushed

The project schedule allowed system design and development tasks to begin before all requirements had been identified and approved for some of the functional areas that were not part of the shared service provider's standard configuration. In the planning phase, the integrated project team decides whether to modify or enhance a system, custom develop a new solution, install and configure a commercial or government off-the-shelf capability, or use a service provided by an external commercial or government entity to meet the identified business needs. During this phase, the team also develops a detailed project schedule.

The New Core team broke the requirements into multiple functional areas. Some of the areas were part of the shared service provider's standard configuration, and some were not. As of April 3, 2015, all of the shared service requirements had been completed. For the areas that were not part of the standard configuration, requirements needed to be completed before design and development began. However, the March 12, 2015, project schedule had design and development tasks for data reconciliations and the system interface solution that were not part of the standard configuration. These tasks were scheduled to begin before the requirements had been completed.

HUD identified the risks involved in developing system designs before completing the planning phase approvals. The risks and anticipated outcomes were identified in the risk and issue logs starting in August 2013 and in five independent verification and validation reports starting in November 2013. If requirements are not identified and understood during the requirements and analysis project phase, the release 3 solution may not meet HUD's needs and could adversely affect the design, development, business process, and testing components. Failing to identify requirements before going online could negatively impact HUD's business operations, create additional work or cost overruns, and require labor-intensive manual work-arounds.

The deficiencies discussed above occurred because HUD did not comply with IT best practices and HUD's project planning and management procedures as well as a perceived reluctance to delay the October 1, 2015, implementation date. The independent verification and validation team reported that the release 3 schedule was developed under the October 1, 2015, deadline, and this date was not extended when additional work packages were added to the schedule. Although the independent verification and validation team repeated its concern that the time needed to complete certain tasks may have been underestimated in several reports, HUD did not change the October 1, 2015, implementation date.

Schedule Management Deficiencies May Impact the Release 3 Implementation Date Schedule management deficiencies may impact the timeliness and quality of the release 3 solution. Specifically,

- 1) The project master schedule was baselined, signifying its finalization and approval prematurely,
- 2) The project master schedule did not allow sufficient time to address issues identified during testing,
- 3) Critical path tasks were not clearly identified in the project master schedule or dashboards.<sup>2</sup>
- 4) Critical path activities that were late were not listed as red on the dashboards,
- 5) Information reported on the dashboard did not match the project master schedule, and
- 6) The New Core team had not developed a contingency plan for release 3.

The project master schedule was baselined before the Office of the Chief Information Officer (OCIO) could determine whether the time necessary to complete assigned tasks was appropriate. In project management, establishing the baseline is the formal end of project planning and the beginning of project execution and control. Controlling the project baseline is critical to project success. The U.S. Government Accountability Office's schedule assessment guide states that an integrated master schedule connects all the scheduled work of the government and the contractor in a collection of logically linked sequences of activities. It also states that the government program management office must ensure that the schedule is as logical and realistic as possible and that the integrated master schedule must be a complete and dynamic network. In addition, it should consist of logically related activities with forecast dates that are automatically recalculated when activities change. The decision to baseline the project master schedule before the completion of the OCIO focus group's meetings made it likely that adjustments to the project schedule would be required, creating additional work for the New Core team. We discussed our concerns with the project's executive director, who acknowledged that the OCIO requirements should have been obtained before the project master schedule was baselined.

<sup>&</sup>lt;sup>1</sup> A baseline is a reference point in the software development life cycle marked by the completion and formal approval of a set of predefined work products. The objective of a baseline is to reduce a project's vulnerability to uncontrolled change by fixing and formally change controlling various key deliverables (configuration items) at critical points in the development life cycle.

<sup>&</sup>lt;sup>2</sup> A dashboard displays the status of metrics and key performance indicators.

OCFO did not allocate time in the project master schedule to address issues uncovered during the system integration testing or the mock 2 testing. Testing is done to provide quality assurance and to reduce the cost and business impact of correcting previously undetected errors. System integration testing ensures that all subcomponents are integrated to provide expected results. Mock conversion testing is done to verify that system scenarios perform as expected when executed with converted data. Failure to allow time in the schedule to address issues uncovered during these forms of testing could delay the project or lead to unresolved issues.

Critical path tasks were not clearly identified in the project master schedule. HUD identified some items as critical within the project schedule; however, it did not identify as critical all of the dependent tasks required to complete an identifiable critical path in the schedule. Further, additional tasks should have been identified as critical, such as the tasks associated with the general ledger interface and accounting flex fields. In project management, the critical path is the succession of connected tasks that will take the longest to complete. Critical path analysis identifies the tasks that are dependent on each other. When the dependent tasks' times are added together, the longest time necessary to complete the project can be predicted. To estimate overall project duration, it is important to know the tasks that can take place independently of each other and those that must occur in a certain sequence. If an activity on the critical path is late, the entire project will be delayed. The critical path and the tasks that are part of it must be managed to complete a project on schedule. Additionally, we could not confirm HUD's calculated completion date because the critical path was not identified on the schedule.

Critical path activities that were late were not listed as red on the dashboards as required by the New Core schedule management plan. For example, OCFO staff confirmed that the "Accounting Flex Field Values / Legacy Value Crosswalk" tasks were both critical and late as of March 11, 2015, but appeared as yellow on the dashboards. After discussing this matter with the New Core team, this item was changed to red.

Also, the dashboards used to report the project status to project management and stakeholders did not report the same information as the project master schedule. This discrepancy could potentially mislead project management and stakeholders. Examples are shown in the table below.

Itom	Description	Percentage complete as reported on the	
Item number		dashboard, dated 2/19/2015	project master schedule, dated 2/24/2015
1.2.8.9	Finalize New Core interface requirements part 1	100	86
1.2.5.17	Complete baselining of requirements	75	0*
1.3.2.2.13	Accounting flex field values- legacy value crosswalk defined	50	7
1.3.5.1	Financial management review roles and responsibilities	25	0**

<sup>\*</sup> The February 26, 2015, schedule shows the item 100 percent complete with a completion date of June 2, 2014.

<sup>\*\*</sup> The February 24, 2015, and February 26, 2015, schedules show that this item had not been started.

Failure to track the critical path on the project master schedule and the dashboard makes it difficult to give an early warning of schedule bottlenecks or late critical path items. In addition, failure to clearly identify these issues on the schedule may increase pressure to rush the completion of the tasks once it is determined that the task is critical and the schedule cannot be modified. Rushing completion of the critical path tasks could also compromise the integrity and effectiveness of both the systems and the data they process, resulting in disruption to HUD's business operations.

Further, the New Core team had not developed a contingency plan for release 3. The independent verification and validation contractor reported that there was no contingency plan to provide an "alternate or back-out plan to ensure HUD will be able to continue to conduct their day-to-day business processes if the integrity of the ARC-HUD environment was compromised." The contractor also noted that an alternative plan should be developed if New Core failed during production. However, New Core's project management team had not addressed these identified weaknesses.

These deficiencies occurred because HUD did not comply with best practices or its own project planning and management requirements and the policies and procedures established for New Core. The independent verification and validation team concluded that there was great reluctance to change the October 1, 2015, implementation date. Unrealistic attempts to meet the October 1, 2015, release date could encourage schedule compression and overly optimistic schedule assumptions and reporting.

## The Project Status May Have Been Misrepresented

Risk management weaknesses may have misrepresented the status of New Core. The risk and issue logs, dated January 12 through March 6, 2015, disclosed that

- (1) Some risks may not have been fully mitigated before being closed,
- (2) Risk logs were missing required information, and
- (3) Risk logs were not readily available on SharePoint and Max.gov collaboration sites.

Best practices call for a structured risk management process, which typically consists of identifying risks, ranking or evaluating risks, responding to significant risks, resourcing controls, reaction planning, reporting and monitoring risk performance, and reviewing the risk management framework.

Since November 2013, the independent verification and validation team reported the need for improvements in reporting, tracking, coordinating between HUD and ARC, and developing mitigation strategies. In response the New Core team developed and issued a comprehensive risk management plan jointly with ARC. The latest version of the plan, dated December 2014, included those elements. The established process required regular reporting and scheduled meetings to evaluate identified risks and included design strategies for mitigating risks and resolving issues. The project team used this process daily to mitigate risks and issues, although we identified some weaknesses.

As an example, risk item 142 was closed before the risk was fully mitigated. We tracked this item between the logs and discovered that it was specifically described as "If the Release 3 reporting strategy is not defined, then the implementation of the Release 3 reporting solution required to support financial management and programmatic operations will be delayed." Risk item 142 was created on November 7, 2014, and assigned a high severity level. To close this risk, the completion of the release 3 reporting strategy, definition of release 3 reporting solution, and completion of release 3 reporting requirements were required. The deputy director stated that the risk was closed on February 23, 2015, based on the New Core reporting strategy that had been approved and the completion of the reporting requirements work sessions. However, the completion of the requirements management life cycle was not scheduled until April 3, 2015. Therefore, the risk should not have been closed because not all of the closure criteria had been met.

Further, risk item 142 was removed from the February 19, 2015, version of the dashboard. Closing risks prematurely could lead to excessive risk taking, which could result in a product that is missing the functionality needed by HUD's program areas. According to the risk mitigation task force, improper transaction processing or funds control could cause Antideficiency Act violations.

The risk log for March 6, 2015, was missing required information. Specifically, four high-risk items that were created on August 1, 2013, had due date and closure criteria entries of TBD (to be determined) or were blank.

In addition, the collaboration sites were missing some of the risk and issue logs. Meetings were held weekly to discuss high-severity risks and high-impact or time-sensitive issues at the release and program level. Updates to the status were documented in the risk and issue logs and were required to be posted to the New Core manager's office's SharePoint site and OMB's Max.gov site<sup>3</sup> within 3 business days following the meeting. We viewed the SharePoint and Max.gov sites on February 13, 2015, and found that the SharePoint site did not contain any risk logs from October and November 2014 and was missing logs from December 2014 and January 2015. The Max.gov site contained only six risk logs from 2014.

A good risk management process ensures that executive management knows and understands the probabilities associated with possible outcomes before starting a project or making funding decisions. Failing to communicate all risks to executive management impairs its ability to make those decisions, while recording and monitoring risk enables managers to learn from experience.

Weaknesses in HUD's risk management resulted from the absence of risk mitigation oversight and a failure to comply with all of the elements in the established risk management plan. The New Core risk manager position had been vacant since project inception and resulted in a lack of oversight. In 2014 the New Core team identified the risk of not complying with the risk

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<sup>&</sup>lt;sup>3</sup> A solution for posting information that is to be shared across office, agency and governmental boundaries.

management plan as having the potential to cause project failure with a severity level of high. The team then closed the risk on September 15, 2014, with a response plan stating that the established risk management plan would be followed.

#### Conclusion

In March 2013, OMB required agencies to consider, as part of their alternatives analysis, the use of a Federal shared service provider for all new agency proposals for core accounting and mixed system upgrades. OMB will fund the use of commercial shared service providers as an appropriate solution if, after reviewing the available Federal and commercial shared service provider solutions and using standard requirements, the agency's business case shows that a commercial shared service provider can provide a better value for the Federal Government. HUD followed that mandate, and in July 2013, its alternatives analysis determined that ARC was the best option among the available Federal shared service providers.

HUD will become the first cabinet-level agency to use a Federal shared service provider. The transfer of its financial management to a shared service provider has been widely publicized. HUD's previous attempt to use a commercial shared service provider to start a new financial management system failed after spending more than \$35 million. Our review of the previous project determined that OCFO did not properly plan and manage its implementation of that project. If HUD is not successful in this implementation, it could reflect negatively on OMB's mandate to use Federal shared service providers. The weaknesses identified in this report relate to requirements and schedule and risk management. These areas are significant to the project plan, and the effectiveness with which HUD manages them is critical to the project's success.

### Recommendations

We recommend that the Chief Financial Officer

- 1A. Ensure that requirements are completed and approved for the functional areas that are not part of the shared service provider's standard configuration before beginning its design and development activities and adjust the project schedule accordingly.
- 1B. Reevaluate the October 1, 2015, start date for release 3 at the completion of planning.
- 1C. Modify the project master schedule and dashboard to better identify the critical path.
- 1D. Modify the project master schedule and dashboard maintenance procedures to ensure that the documents are accurate and report the same information.
- 1E. Modify the project master schedule to provide time to address issues identified during the system integration testing and mock 2 testing.
- 1F. Identify specific and measurable progress factors and the minimum required functionality that will determine the go-no go decision.
- 1G. Establish a contingency plan for release 3 that provides an alternate or backout plan.
- 1H. Ensure that all risks are fully mitigated before closing and that the risk and issue logs contain all required information and are made available on the collaboration sites.
- 1I. Fill the risk manager position.

## Scope and Methodology

The audit covered the period January 15 through April 10, 2015. We performed the audit at HUD headquarters in Washington, DC. Audit work was conducted from January 15 through April 10, 2015. Our audit was based on the U.S. Government Accountability Office's Federal Information System Controls Audit Manual methodology and IT guidelines established by the National Institute of Standards and Technology.

## We conducted the audit to

- Determine New Core's status,
- Identify areas warranting additional review, and
- Obtain information to plan and perform the detailed audit work to follow and determine compliance with Federal regulations and departmental project management processes.

## To evaluate these areas, we

- Identified and reviewed HUD's policies and procedures;
- Reviewed project plans;
- Reviewed documentation related to the status of the project, including the project schedule and risk and issue logs; and
- Held discussions with HUD staff and contractors and stakeholders involved in the project.

We conducted the audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective(s). We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## **Internal Controls**

Internal control is a process adopted by those charged with governance and management, designed to provide reasonable assurance about the achievement of the organization's mission, goals, and objectives with regard to

- Effectiveness and efficiency of operations,
- Reliability of financial reporting, and
- Compliance with applicable laws and regulations.

Internal controls comprise the plans, policies, methods, and procedures used to meet the organization's mission, goals, and objectives. Internal controls include the processes and procedures for planning, organizing, directing, and controlling program operations as well as the systems for measuring, reporting, and monitoring program performance.

### **Relevant Internal Controls**

We determined that the following internal controls were relevant to our audit objective:

 Policies, procedures, and other management tools used for implementation of controls for the New Core Project.

We assessed the relevant controls identified above.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, the reasonable opportunity to prevent, detect, or correct (1) impairments to effectiveness or efficiency of operations, (2) misstatements in financial or performance information, or (3) violations of laws and regulations on a timely basis.

## **Significant Deficiency**

Based on our review, we believe that the following item is a significant deficiency:

• Weaknesses in the New Core Project were not adequately addressed.

## **Appendixes**

## Appendix A

### **Auditee Comments and OIG's Evaluation**

## **Ref to OIG Evaluation**

### **Auditee Comments**



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT WASHINGTON, DC 20410-3000

OFFICE OF THE CHIEF FINANCIAL OFFICER

5-28-2015

MEMORANDUM FOR: Hanh T. Do, Director, Information Systems Audit Division, GAA

FROM: Joseph I. Hungate III, Deputy Chief Financial Officer, F

SUBJECT: Response to OIG Draft Audit Report titled, "The Success of the New

Core Project May Be at Risk"

This memo is in response to your May 11, 2015 request to the Office of the Chief Financial Officer for comments to Draft Audit Report, titled, "The Success of the New Core Project May Be at Risk". We have reviewed this report and have provided comments below.

#### **General Comments**

The subject of your report is misleading. The finding and recommendations listed below are minor discrepancies that the OCFO has either corrected or is in the process of correcting. The OIG has acknowledged as such and has indicated no further action is required for the survey recommendations. We request that the OIG consider changing the subject to better reflect the New Core project current situation and efforts.

Additionally the OIG defined this review as a "survey" and not an audit. The purpose of the survey was to determine the scope of the New Core audit. The OIG launched its audit of New Core only a few weeks ago and is currently auditing the New Core Interface Solution (NCIS).

HUD is the first Cabinet level agency to transition to a shared service and so far has successfully launched Phase 1-Release 1 and Release II of the New Core Project. The recommendations listed below as a result of the OIG survey are not totally accurate and do not consider all the progress that New Core has achieved to date nor does the Report consider or include the responses provided to the OIG during the survey.

We rearranged and renumbered some of the recommendations as indicated below to better align with our responses.

#### Finding: New Core Project Success May Be at Risk - Please modify this title

**Recommendation 1 [A]** Ensure that requirements are completed and approved for the functional areas that are not part of the shared service provider's standard configuration before beginning its design and development activities and adjust the project schedule accordingly.

OCFO Response: OCFO is taking a similar approach about gathering requirements for each process area/module for the non-shared service components. For example, OCFO is gathering requirements for the budget NCIS component and then once approved, the design and configuration

Comment 4

Comment 1

Comment 2

Comment 3

## **Auditee Comments and OIG's Evaluation**

## **Ref to OIG Evaluation**

### **Auditee Comments**

Comment 5

Comment 6

Comment 7

activities will begin. As of today all requirements, the shared service provider's standard configuration, gap analysis decisions, and non-shared service component requirements have been documented and approved. **OCFO considers this recommendation closed.** 

Recommendation 2 [B]: Reevaluate the October 1, 2015, start date for Release 3 at the completion of planning.

OCFO Response: The Release 3 Integrated Master Schedule outlines the two-built in go/no-go decision points which allows OCFO to assess the October 1, 2015, implementation. The first go/no-go decision point scheduled for 7/15/15 will be based on the results of System Integration Testing (SIT), Mock 1 data conversion testing and initial results of HUDs User Acceptance Testing (UAT). The second go/no-go decision point scheduled for 8/18/15 will be based on the results of the UAT and Mock 2 data conversion testing. During these decisions, OCFO will evaluate both functionality and schedule impacts and, if any significant issues are discovered, will use its pre-approved contingency plans, as necessary. OCFO considers this recommendation closed.

Recommendation 3 [C]: Modify the project master schedule and dashboard to better identify the critical path.

OCFO Response: The dashboard does delineate the critical path as well as other important issues and milestones. New Core has already distinguished those critical path milestones to assist readers. OCFO has been tracking and assessing the critical path during the weekly Release 3 meetings throughout the program through the project schedule. It has modified the dashboard to reflect the critical path milestones for the Release 3 project team, stakeholders, and leadership awareness and understanding post the OIG Survey Phase audit.

OCFO has already highlighted and communicated the critical path through the project schedule to the Release 3 project team, stakeholders, and leadership through the weekly Release 3 status meetings and leadership meetings. OCFO considers this recommendation closed.

<u>Recommendation 4 [G]:</u> Establish a contingency plan for Release 3 that provides an alternate or back out plan.

OCFO Response: OCFO has drafted a Contingency Plan which will be updated, at the appropriate time in the project schedule, once the program team has a more detailed understanding of areas that will potentially need to be mitigated. The Contingency Plan will be deployed in the event of a nogo decision or the need to roll back the solution post go-live. The Contingency Plan includes alternatives for pre-cutover, mid-cutover, and post-cutover alternatives based on appropriate mitigation plans to make sure there is the continuity of HUD's day-to-day financial operations. OCFO considers this recommendation closed.

Recommendation 5 [H]: Ensure that all risks are fully mitigated before closing and that the risk and issue logs contain all required information and are made available on the collaboration sites.

### **Auditee Comments and OIG's Evaluation**

## Ref to OIG Evaluation

### **Auditee Comments**

Comment 8

Comment 9

Comment 10

OCFO Response: The New Core project has implemented several layers of risk identification and mitigation mechanisms, to include the development of the risks and issues log and risk management plan, the formation and the execution of the Joint Mitigation Task Force, and reoccurring bi-weekly risk management reviews. The project incorporates feedback and observations from the Independent Verification and Validation (IV&V) team on a weekly basis into the larger risk management process and raises risks to leadership in the New Core Dashboard on a weekly basis. The program will continue to follow the risk closure criteria guidelines and processes, as outlined in the Risk Management Plan. Additionally, New Core will monitor risks until all close criteria have been met and will only close risks once the risk tolerance is understood, and with approval from program and release managers. OCFO will review the risk and issue logs and update the logs on relevant open risks to determine if required information is missing from any risks or issues. OCFO has made available all risk management documentation, to include the risks and issues log, on collaboration sites (SharePoint and Max.gov). OCFO has provided further guidance to both the HUD and ARC teams to update the collaboration sites with risk and issue documentation weekly. In doing so, OCFO has designated an administrator responsible for working with the teams to manage the collaboration sites to facilitate knowledge management of program documents. OCFO considers this recommendation closed.

Recommendation 6 [D]: Modify the project master schedule and dashboard maintenance procedures to ensure that the documents are accurate and report the same information.

OCFO Response: OCFO has already modified the schedule and dashboard maintenance procedures and the cadence of updates to make sure the information is consistent between both documents. The dashboard has been updated to delineate project activities and project milestones for proper reporting of due dates and percent complete. OCFO highlights in the dashboard if there are any discrepancies between the schedule and dashboard due to any differences in the cadence of information available. OCFO considers this recommendation closed.

Recommendation 6 [E]: Modify the project master schedule to provide time to address issues identified during the system integration testing and mock 2 testing.

OCFO Response: OCFO has developed an iterative approach through unit testing, pre-mock conversion, and mock conversion activities to identify and address issues as early as possible in the schedule. OCFO has built multiple go/no-go decisions into the Release 3 Integrated Master Schedule. The results of the data conversion testing to include pre-Mock Cycles 1-3, Mock 1 and Mock 2 testing and system integration testing will inform those go/no-go decisions based on the volume and severity of issues encountered and not resolved. If significant issues are discovered and not able to be resolved within the given timeframes, then New Core will assess both functionality and schedule impact to determine a path forward and execute the Contingency Plan as necessary.

Prior to, and in addition to, system integration testing and mock 2 testing HUD has performed premock testing. Pre-mock 1 for the financial management system was conducted from March 1<sup>st</sup> to March 31<sup>st</sup>, pre-mock 2, to include financial management and procurement systems was conducted from April 1<sup>st</sup> to April 28<sup>th</sup>, and pre-mock 3 for both systems was conducted from April 28<sup>th</sup> to May 28<sup>th</sup>. Full mock testing cycle 1 is planned for May 29<sup>th</sup> to June 26<sup>th</sup>. All four of these cycles allow for identification of issues and an opportunity to resolve them prior to Mock 2. For example Mock

## **Auditee Comments and OIG's Evaluation**

## Ref to OIG **Evaluation**

## **Auditee Comments**

1 has activities within the schedule to resolve data failures (6/18 - 7/9) and code updates (6/25 -7/9). Mock 2 also has time in the schedule to resolve data errors (8/5 - 8/18) that allow for resolution and testing prior to the Go-No Go determination.

Additionally, HUD and ARC have worked closely during Unit Testing to ensure Systems Integration testing (SIT) could and would be accomplished in a timely and comprehensive manner. SIT testing has started and significant progress has been made in execution of SIT scripts with a relatively small number of defects being reported. Those being reported are being corrected and retested within the SIT window of May 19<sup>th</sup> to June 23<sup>rd</sup>. Finally, User Acceptance testing (UAT) will execute the full system, end to end, to provide an additional layer of System Integration testing. OCFO considers this recommendation closed.

Recommendation 6 [F]: Identify specific and measurable progress factors and the minimum required functionality that will determine the go-no go decision.

OCFO Response: OCFO developed Go/No-Go Criteria through an Operational Readiness Checklist. The Operational Readiness Checklist provides specific and measurable progress factors that must occur in order to determine the "Go" decision. However, there is not a minimum required functionality that could be deployed. OCFO will need to deploy Oracle Federal Financials and PRISM together due to the tightly coupled integration. OCFO will also need the NCIS solution in place to keep Oracle Federal Financials and HUDCAPS reconciled for budget and general ledger transactions. OCFO considers this recommendation closed.

Recommendation 6 [I]: Fill the risk manager position

OCFO Response: Prior to the engagement of your survey and the issuance of this recommendation, OCFO had already filled the risk manager position. As a result, OCFO considers this recommendation closed.

We look forward to working with you and your staff to resolve and close-out the recommendations. If you have any questions or need additional information please contact Simin Narins at 202-402-

Rafael Diaz, Chief Information Officer, Q

Kevin Cooke, Deputy Chief Information Officer, Q
Jon L. Gant, Assistant Chief Financial Officer for Systems/Executive Director, New Core Project,

Peggy R. Martin, Deputy Director, New Core Project, FYQ

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Larry McGhee, Director, Audit Liaison Division, FMA

Ruby Porch, Audit Liaison, Office of the Chief Information Officer, QMAC

## Comment 11

## Comment 12

### **OIG Evaluation of Auditee Comments**

- Comment 1 The statements made by the CFO are inaccurate. At no time did OIG audit staff indicate that the findings were minor or that further action would not be required to address the weaknesses. We consider the findings significant, one of our recommendations is for the CFO to reevaluate the October 1, 2015 implementation date for release 3 at the completion of planning. The department has not provided evidence related to the actions they have initiated or taken to correct the weaknesses identified. We have revised the wording of the subject of the report to reflect the project's current situation and efforts.
- Comment 2 We agree that the audit work related to the identified weaknesses was performed during the survey phase of our audit. A survey is generally performed as a phase of an audit. It is a general review from which specific audit areas are identified. During the survey phase of this assignment, we concluded that several of the weaknesses identified were significant and needed to be brought to management's attention quickly. To accomplish that, we completed the audit work in those areas, and in accordance with GAGAS, prepared and issued this audit report.
- Comment 3 We cannot comment on the launch of Phase 1 Release 1 and Release II as they were not within the scope of this report. We disagree with the statement that the actions and progress made by the Department in the implementation of the New Core Project was not taken into consideration within the course of our audit. In addition, the Department was given multiple opportunities to provide comments related to the issues we identified and modifications were made as appropriate throughout the standardized review process.
- Comment 4 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with OCFO and reviewing the supporting documentation for the completion of all requirements, and verifying the requirements for the functional areas outside the shared service provider's standard configuration were completed prior to design and development activities.
- Comment 5 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with OCFO and reviewing the supporting documentation for the mock conversions, system integration testing, user acceptance testing, and evaluation of the October 1, 2015 implementation date.
- Comment 6 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with the OCFO and reviewing the supporting documentation for modifications made to the master schedule, projects dashboards and weekly status and leadership meetings.

- Comment 7 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with the OCFO and reviewing the Contingency Plan.
- Comment 8 OIG agrees the New Core team has implemented several layers of risk identification and mitigation mechanisms as acknowledged in the body of this report. However, the OIG has not received documentation in support of the OCFO's other comments; therefore, we cannot make an assessment regarding them. We look forward to working with OCFO and reviewing the enhancements made for monitoring risks until all closure criteria have been met, addition of missing information in the risks and issues log, and methods for keeping the collaboration sites current.
- Comment 9 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with the OCFO and reviewing the modifications made to the schedule and dashboard maintenance procedures.
- Comment 10 OIG partially agrees with OCFO. We agree that the go/no-go decision points are a good time to assess the impact of any major issues that are uncovered during testing. However, the effectiveness of the iterative approach to testing may be undermined by integrated tasks being completed at notably different times in an environment of ongoing development. In addition, if issues are uncovered in testing and the decision is made to proceed with deployment it is unclear as to where time in the schedule can be allocated to remediate the problems. Finally there are several critical tasks, including: Reconciliation, Crosswalk Maintenance, and Financial Data Extracts, which will finish development and unit testing during the time allocated for System Integration Testing. Delays on any of the aforementioned items could lead to inconclusive testing or affect the timeline. Therefore, we continue to recommend that the OCFO modify the project schedule to provide time to address the issues identified during testing.
- Comment 11 The OIG has not received documentation in support of the OCFO's comments; therefore, we cannot make an assessment regarding them. We look forward to working with the OCFO and reviewing the Operational Readiness Checklist and verifying the progress factors. While required sections of Release 3 may not be deployed by the Go/No Go decision date, development of critical parts of Release 3 should be completed prior to the decision date. In addition, thorough testing of critical areas should be completed prior to the decision and all serious issues should be addressed.
- Comment 12 We disagree that prior to the engagement of our survey the risk manager position had already been filled. We began our audit on January 28, 2015, and on March 6, 2015, the New Core team member responsible for budget and contracting informed us the risk manager position was currently one of approximately thirteen vacant positions on the project. The Project Executive Director acknowledged that HUD made a decision not to fill the Risk Manager position and to instead

have the deputy director assume those duties. The decisions made by the department and the processes in place were assessed during our review and found to be inadequate. We look forward to working with OCFO and reviewing the supporting documentation that shows the risk manager position has been officially filled.