

MEMORANDUM

November 17, 2021



U.S. DEPARTMENT
OF HOUSING
AND URBAN
DEVELOPMENT

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Subject: Delays in Federal Housing Administration Catalyst's Development (2021-OE-0003a)

Introduction

On June 30, 2021, the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General (OIG), Office of Evaluation issued a report on the results of our evaluation of HUD's Information Technology (IT) Modernization Roadmap.¹ This report states that HUD had successfully managed the Federal Housing Administration (FHA) Catalyst Initiative,² and that HUD reported gaining efficiencies, security, and cost savings for HUD and industry partners. HUD reported that the FHA's modernization effort successfully transformed the FHA loan origination and claims process. However, the report also states that after fieldwork for that evaluation ended in March 2021, we became aware of potential project changes and shifting schedules on FHA Catalyst's development, which would potentially lead to delays.

In response to these concerns, we announced an evaluation on August 12, 2021. This is a follow-on evaluation of our work on the IT Modernization Roadmap evaluation to determine the status of FHA Catalyst. Our objectives for this evaluation were to determine

1. why HUD paused work on the FHA Catalyst,
2. what caused that pause,
3. whether and to what extent HUD is back working on FHA Catalyst, and
4. the revised dates for completion of FHA Catalyst.

¹ HUD OIG Evaluation Report [2021-OE-0003](#), HUD Information Technology Modernization Roadmap Evaluation. In this report, we offered two recommendations to assist with continued successes for future modernization efforts. As of August 31, 2021, both recommendations made during this evaluation were unresolved.

² FHA Catalyst is FHA's IT modernization initiative. It is the foundation on which FHA will plan to use new and innovative ways to fulfill its mission throughout its technology transformation.

Results in Brief

In February 2021, Office of the Chief Information Officer (OCIO) identified funding risks with the development contract under which HUD contracted for FHA Catalyst's development. In response, HUD officials took steps to slow FHA Catalyst spending on the contract while awaiting approval for additional contract funds. Despite efforts to slow project spending, it was not enough to prevent funding shortfalls before the contract's base year end. Poor contract oversight enabled OCIO to exhaust funds before the end of the base year, which stopped work on FHA Catalyst. Additionally, several issues also hindered FHA Catalyst development activities. As of August 2021, HUD had resumed FHA Catalyst development work at limited capacity. As of October 2021, HUD estimated that it would complete FHA Catalyst development in March 2025.

Background

FHA Catalyst Is a Single-Platform Portal Aimed at Improving Single Family Loan Processing

According to HUD, FHA Catalyst is replacing FHA's siloed approach to insurance endorsement, claims payments, and risk management. Using FHA Catalyst, lenders will interact with FHA throughout the life cycle of the loan through an online single-platform portal. By moving to an online single-platform portal, FHA is eliminating approximately 75 million sheets of paper from previous paper-based binder and claim submissions. With associated workflow, business rules, and data architecture, FHA Catalyst will enhance and simplify lenders' experience working with FHA. HUD further states, the modernization will transform FHA's single-family loan processes to decrease cost, reduce risk and fraud, and bring FHA in line with current industry practices. When complete, FHA Catalyst will provide full life-cycle and servicing support for single-family loans. FHA Catalyst will enable FHA to manage its program and processes more efficiently and effectively, benefiting those who do business with FHA.

HUD's OCIO Manages FHA Catalyst

Two offices within HUD's OCIO oversee FHA Catalyst. The mission of the Office of the Chief Digital Services Officer (CDSO) is to deliver state-of-the-art digital products and services, transforming the way HUD does business. It delivers digital products and services through IT modernization projects to enhance HUD's data analytics and operational efficiencies. The Office of Business and IT Resource Management (BIRM) is OCIO's business manager, supporting OCIO in its delivery of enterprise-wide solutions. BIRM has responsibilities for human and financial resource management, including OCIO funds control, budget execution, internal controls, and acquisition management.

FHA Catalyst Development Work Is Supported by Two Contracts With Pyramid Systems

FHA Catalyst began with a Housing Modernization Charter in April 2019. Full development of FHA Catalyst began in 2020 using agile principles³ to minimize risk throughout the development. This agile modernization approach allows for reprioritization of tasks to quickly respond to development needs.

The development of FHA Catalyst and a range of other HUD IT modernization initiatives⁴ are led by the contractor Pyramid Systems, Inc. HUD has an interagency agreement⁵ with the General Services Administration (GSA), which has contracted with Pyramid Systems for this work.

Two separate contracts with Pyramid Systems support FHA Catalyst development work. The first is the Salesforce Refactoring and Implementation Services (SRISS) contract and the second is the IT Development, Implementation and Deployment of Salesforce Licenses (DIDSL) contract. HUD is customizing the Salesforce application platform as a service for FHA Catalyst. The SRISS contract is critical for HUD's successful expansion and full-scale utilization of Salesforce to provide support services for SRISS. Similarly, the DIDSL contract provides professional and consulting services in support of the expansion, implementation, and use of the Salesforce application platform.⁶

To Use Funding for FHA Catalyst, HUD Must Comply With Congressional Reporting Requirements

As of May 2021, the total FHA Catalyst development cost was estimated to be \$92 million. In HUD's October 2021 performance plan submission, HUD reported that it spent approximately \$36 million, or 39 percent, of the estimated development cost.

The appropriations acts⁷ providing IT funds require HUD to submit an expenditure plan for any development, modernization, and enhancement (DME) activities exceeding 10 percent of the total appropriated amount. The fiscal year (FY) 2021 Appropriation Act's joint explanatory statement directs⁸ HUD to provide quarterly FHA Catalyst updates to Congress that compares

³ Agile project management is an iterative approach to delivering a project throughout its life cycle. Agile life cycles are composed of several iterations or incremental steps toward the completion of a project. They are frequently used in software development projects to promote velocity and adaptability because developers can adjust as they go along rather than following a linear path. The agile approach aims to release benefits throughout the process rather than only at the end.

⁴ There are 16 other initiatives under this agreement. These other initiatives were outside the scope of this evaluation.

⁵ The interagency agreement describes the terms and conditions that govern the assisted acquisition between GSA and HUD.

⁶ Of the two contracts used for FHA Catalyst development, the DIDSL contract did not create a pause in FHA Catalyst development. The scope of the DIDSL contract is to acquire professional and consulting services in support of expansion, implementation, and use of the Salesforce application platform.

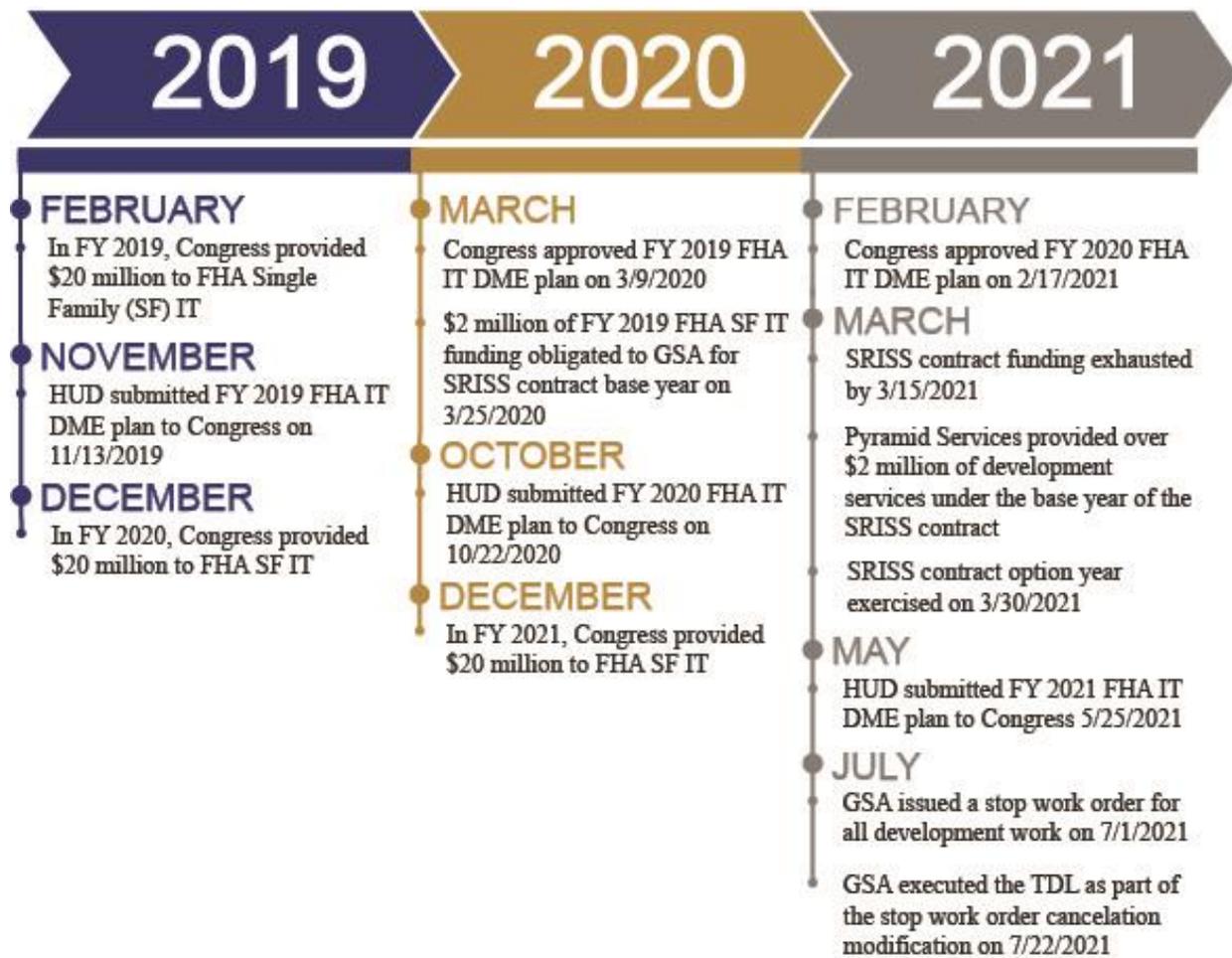
⁷ The appropriation acts in FY 2019 and FY 2020 required an expenditure plan and the FY 2021 required a performance plan.

⁸ Committee reports contain these directives.

the expenditure plan against actual performance approval (also known and referred to in this memorandum as a performance plan). OCIO officials within BIRM told us HUD could not obligate more than 10 percent of the total appropriated amount without Congressional expenditure plan approval.

Figure 1 below shows a timeline of actions taken by the Subcommittees on Transportation, Housing and Urban Development, and Related Agencies, GSA, and HUD on FHA Catalyst’s development.

Figure 1 –Timeline of events related to the development of FHA Catalyst



Methodology

To meet our evaluation objectives, we reviewed

- documentation HUD OIG received during the IT Modernization Roadmap evaluation related to FHA Catalyst;
- Executive Steering Committee meeting agendas and minutes; and
- HUD's interagency agreement with GSA, including all modifications.

We also conducted 13 interviews and briefings with personnel from OCIO, GSA, and Pyramid Systems who we considered subject-matter experts and were best positioned to speak about the interagency agreement, HUD's contracting process for FHA Catalyst, or FHA Catalyst project management.

We completed this evaluation under the authority of the Inspector General Act of 1978 as amended and in accordance with the Quality Standards for Inspection and Evaluation issued by the Council of the Inspectors General on Integrity and Efficiency (January 2012).

Scope

The scope for this evaluation is limited to FHA Catalyst development activities occurring between March 31, 2021, the end of fieldwork for the IT Modernization Roadmap evaluation, and August 31, 2021. This scope period was intended to allow us to determine the condition and causes of delays with FHA Catalyst. We included information in this memorandum that fell outside our initial scope so as to include the most current information available at the time of issuance of our report specific to estimated timelines for completion and known expenditures related to FHA Catalyst.

Results

Poor Contract Oversight Allowed OCIO to Exhaust Funds Prematurely Which Stopped Work on FHA Catalyst

Poor contract oversight allowed unauthorized parties to assign work on the SRISS contract. This poor oversight resulted in a stop on SRISS contract work, which included all FHA Catalyst development work, for a period of 3 weeks.

HUD and Pyramid Systems did not follow established work assignment roles as defined in the performance work statement for the SRISS contract. The performance work statement states that the contracting officer is the only authorized government agent who can assign work on the contract. The CO may delegate authority to direct work to a COR; project managers in this instance are not CORs. An OCIO official within BIRM with direct knowledge of OCIO's contracts told us that FHA Catalyst project managers were assigning work to Pyramid Systems, and Pyramid Systems was completing work based on those assignments. GSA acquisition oversight officials serving on the SRISS contract also told us that they were concerned about certain work assignments.

Unauthorized work assignments directly impacted the available contract funding due to the SRISS contract's labor hour structure. Labor hours provide flexibility to manage projects effectively, but also introduce risk if not managed according to contract terms. As stated earlier, project managers assigned work on the contract, despite not being authorized to assign such work. In doing so, those project managers directed Pyramid Systems to use labor hours and spent contract funds, directly decreasing the limited overall funding availability.

In July 2021, GSA and OCIO officials took steps to stop the unauthorized personnel from assigning work on the SRISS contract. GSA officials told us that they engaged directly with the SRISS contract COR, TPOC, and Pyramid Systems to review the contract language and ensure that staff members from each organization clearly understood their respective work assignment roles and responsibilities. Then, officials from GSA, HUD, and Pyramid Systems collaborated to draft a detailed technical direction letter (TDL), which provided technical direction and clarified tasks. The TDL covered other important details, such as how to manage the contract labor hours. It also explicitly prohibited Pyramid Systems from performing work exceeding established labor hour and cost ceilings.⁹ A representative from each organization signed the TDL in July 2021.

Despite Identifying Funding Issues in February 2021, OCIO Did Not Act Quickly to Avoid Exhausting Contract Funding and Stopping FHA Catalyst Work Before the End of the Contract's Base Year

In February 2021, OCIO identified funding risks with the SRISS contract. OCIO officials within BIRM identified FHA Catalyst's high burn rate¹⁰ relative to remaining base year¹¹ contract funds as a significant risk and informed OCIO officials within CDSO of this issue. OCIO officials within BIRM projected that the FHA Catalyst initiative would exhaust its funding from the base year contract around the first week of March 2021 based on the burn rate at that time.

In response, HUD officials took steps to slow FHA Catalyst spending on the SRISS contract while awaiting congressional approval for additional contract funds. BIRM officials coordinated with officials in OCIO's CDSO to slow spending and thereby prevent OCIO from exhausting base year contract funds before the end of the base year, March 29, 2021. OCIO prioritized certain FHA Catalyst workstreams¹² to slow overall SRISS contract spending. OCIO officials within BIRM and CDSO jointly reviewed the development workstreams to determine which workstreams could be delayed or eliminated to conserve remaining base year contract funds. As a result, the Executive Steering Committee prioritized the five most important FHA Catalyst workstreams and requested cuts based on priority order. OCIO officials within BIRM and

⁹ Per acquisition.gov, the general definition of a cost ceiling provides the assumption of a reasonable proportion of risk by the contractor and once established, may be adjusted only by contract clauses providing the equitable adjustment or other revision of the contract price under stated circumstances.

¹⁰ The U.S. Government Accountability Office's Cost Estimating and Assessment Guide, Best Practices for Developing and Managing Program Costs (GAO-20-195G), defines the burn rate as the actual cost of work performed.

¹¹ The base year is March 30, 2020 to March 29, 2021.

¹² The term "workstreams" is used to describe groups of activities that flow logically together. In FHA Catalyst development, the workstreams represent various capabilities being developed in each development module.

CDSO agreed to continue work on three of the five highest priority FHA Catalyst workstreams for the remainder of the contract base year.

Despite efforts to slow project spending by pausing lower priority FHA Catalyst workstreams, these steps were not enough to prevent existing funding shortfalls before the SRISS contract's base year end. By March 15, 2021, OCIO had exhausted its base year funding for the SRISS contract.¹³ From March 15, 2021 through March 29, 2021, Pyramid Systems continued performing development work “at-risk,”¹⁴ which is when a contractor performs work when funds have not been appropriated or allocated. OCIO received more than \$2 million in development services from Pyramid Systems during this at-risk period. On March 29, 2021, GSA modified the SRISS contract to obligate approximately \$837 thousand in funding while also exercising the contract's option year to start on March 30, 2021. On July 1, 2021, upon HUD's request, GSA issued a stop work order,¹⁵ which stopped all FHA Catalyst development work.¹⁶ A Pyramid Systems official said Pyramid Systems chose to continue working at-risk because they believed the work was important and they did not want HUD negatively impacted by stopping work. They added that if they had to stop work, it would be challenging to stop and restart later. It was, therefore, easier to keep development moving.

Additional Issues Hindered FHA Catalyst Development Activities

Several issues further hindered FHA Catalyst development activities on the SRISS contract. Namely, HUD experienced turnover of key operational and leadership positions essential to influencing the oversight and direction of FHA Catalyst development. The time required to coordinate with GSA to modify the contract limited HUD's ability to make agile contract changes. Similarly, directives to obtain approval from Congress hindered HUD's ability to obligate funding timely when urgent needs arise. We also observed that HUD officials disagreed about the extent to which the SRISS contract structure and funding ceiling impacted FHA Catalyst development activities.

Staffing Changes Within HUD Hindered Contract Direction

Internal HUD staff changes hindered communication about SRISS contract activities. During the SRISS contract's base year, primary and alternate TPOCs oversaw contract operations at different times. The TPOC serves as an integral interface among GSA's contracting officer, COR, and the contractor. Because primary and alternate TPOCs transitioned on the contract, information about contract activities did not flow seamlessly among organizations working on FHA Catalyst's development. At different times during the contract's base year, the primary and

¹³ During fieldwork for this evaluation, HUD and external parties told us that the invoices submitted for the base year of the contract were still under review. Our fieldwork for this evaluation ended August 31, 2021 or approximately 5 months after the end of the base year, which ended on March 29, 2021.

¹⁴ HUD officials used the term “at risk” to define the period when the contractor was working without guarantee of payment.

¹⁵ GSA administers the contract with Pyramid Systems. GSA's staff are the contracting officers and have sole authority to issue the stop work order, by means of a contract modification.

¹⁶ The stop work order included all SRISS contract work including development of FHA Catalyst.

alternate TPOCs also had to reconcile and validate (1) the work performed by Pyramid Systems, (2) the invoices Pyramid Systems billed, and (3) the remaining contract funds.

Additionally, leadership turnover due to the Presidential transition in 2021 resulted in vacancies within the Executive Steering Committee. Executive Steering Committee members influence project planning for IT modernization efforts by evaluating project progress, addressing critical decisions, and establishing new priorities. As of June 2021, the Executive Steering Committee was comprised of the following HUD officials:

- Principal Deputy Assistant Secretary for Housing
- Associate General Deputy Assistant Secretary for Housing
- Special Assistant, Office of Secretary
- Deputy Assistant Secretary for Single Family Housing
- Associate Deputy Assistant Secretary for Single Family Housing
- Deputy Assistant Secretary for Finance and Budget
- Chief Digital Services Officer
- Additional CDSO staff

However, due to the Presidential transition, several of the politically appointed positions with Executive Steering Committee membership were vacant. A former FHA official told us that in February 2021, the Executive Steering Committee was temporarily disbanded, and committee meetings paused for at least 70 days.¹⁷ As a result, the Executive Steering Committee was not actively directing FHA Catalyst development. However, some of the remaining committee members discussed contract related topics for FHA Catalyst. For example, OCIO officials discussed contract funding concerns related to FHA Catalyst workstreams and lead times on procurement actions impacting HUD's access to contract funds. If the committee had not paused its meetings, all committee members could have reviewed these issues, discussed their impact, and decided on how to address them.

Lead Times for Certain Requirements Limited HUD's Ability To Make Agile Contract Changes

The lead times needed to meet certain contractual and congressional requirements limited HUD's ability to make agile changes to the SRISS contract. Although detailed planning can mitigate the risk that these lead times pose to contract execution, the lead times limited HUD's flexibility when circumstances changed or urgent needs arose.

HUD uses GSA's assisted acquisition services for FHA Catalyst development work. GSA-assisted acquisitions require lead time to modify contracts. GSA's procurement action lead time for any contract modification, including modifications to add contract funds, is 45 days. When urgent needs arise, this lead time adds additional challenges for HUD programs that need to add funding to their contracts quickly. For example, although Congress approved the FY 2020 FHA IT DME funds on February 17, 2021, there was no mechanism to modify the contract's first option year to add funding sooner than 45 days or before April 3, 2021. As stated earlier,

¹⁷ The committee had not met during our scope period until April 14, 2021. April 14, 2021 meeting minutes, and review of prior meeting minutes, indicated the committee had not met since January 28, 2021.

officials within BIRM estimated that the contract would exhaust its available funding by early March 2021. Therefore, any attempted modifications to obligate funds to the SRISS contract could not be completed before funds had run out.

Additionally, congressional DME funding request lead times introduced uncertainty into the contract funding planning process. The appropriations acts providing funds require HUD to submit for approval IT DME expenditure plans before HUD can obligate more than 10 percent of approved DME funds.¹⁸ OCIO officials said HUD was not permitted to obligate additional funds for FHA Catalyst development while awaiting approval. According to HUD officials, this process is lengthy and continues to evolve. For example, for the FY 2019 Appropriation Act enacted on February 15, 2019, HUD submitted the FY 2019 FHA IT DME plan to Congress on November 13, 2019 and received plan approval on March 9, 2020. The period between the enactment of the law and HUD's submission was approximately 9 months. Additionally, for the FY 2020 Appropriation Act enacted on December 20, 2019, HUD submitted the FY 2020 FHA IT DME plan to Congress on October 22, 2020 and received plan approval on February 17, 2021. The period between the enactment of the law and HUD's submission was approximately 10 months. For both submissions, the time between HUD's submission and approval was approximately 4 months, but OCIO officials within BIRM stated that they anticipated the approval would be faster.¹⁹ At the conclusion of our fieldwork on August 31, 2021, HUD had not yet received approval for its May 25, 2021 performance plan submission.

OCIO Officials Disagreed About the Extent to Which the Contract Structure and Cost Ceiling Hindered FHA Catalyst Development Activities

OCIO officials disagreed about the extent to which the contract structure and cost ceiling hindered development activities. As discussed earlier, OCIO officials within BIRM told us they identified FHA Catalyst's high burn rate as the primary reason why they requested to slow contract spending and delay workstreams in the SRISS contract base year. Conversely, OCIO officials within CDSO identified the contract's structure and ceiling limitation as the primary reason for slowed contract spending and reduced workstreams in the SRISS contract base year. OCIO officials within CDSO stated that the FHA Catalyst program was on target and within budget when OCIO officials within BIRM requested to slow contract spending and delay workstreams in March 2021. OCIO officials within CDSO noted that the SRISS contract's structure included FHA Catalyst and non-FHA Catalyst project work. They told us that, as a result, labor hours spent performing work on non-FHA Catalyst project work could still be charged to the SRISS contract, increase the total cost, and reach the contract ceiling prematurely. They also told us that they preferred FHA Catalyst development activities to be performed on a stand-alone follow-on contract to avoid such limitations. Due to this preference, it is our understanding that OCIO requested to limit the scope of the follow-on contract for FHA Catalyst development activities to FHA Catalyst development work only.

¹⁸ The appropriation acts referenced here are not limited to FHA Catalyst but include all IT Modernization efforts at HUD. However, the FY 2021 Appropriation Act's joint explanatory statement further clarifies this requirement for FHA Catalyst.

¹⁹ At the conclusion of our fieldwork, HUD stated that its May 25, 2021 submission had not yet received congressional approval.

HUD Has Resumed FHA Catalyst Development Work at Limited Capacity

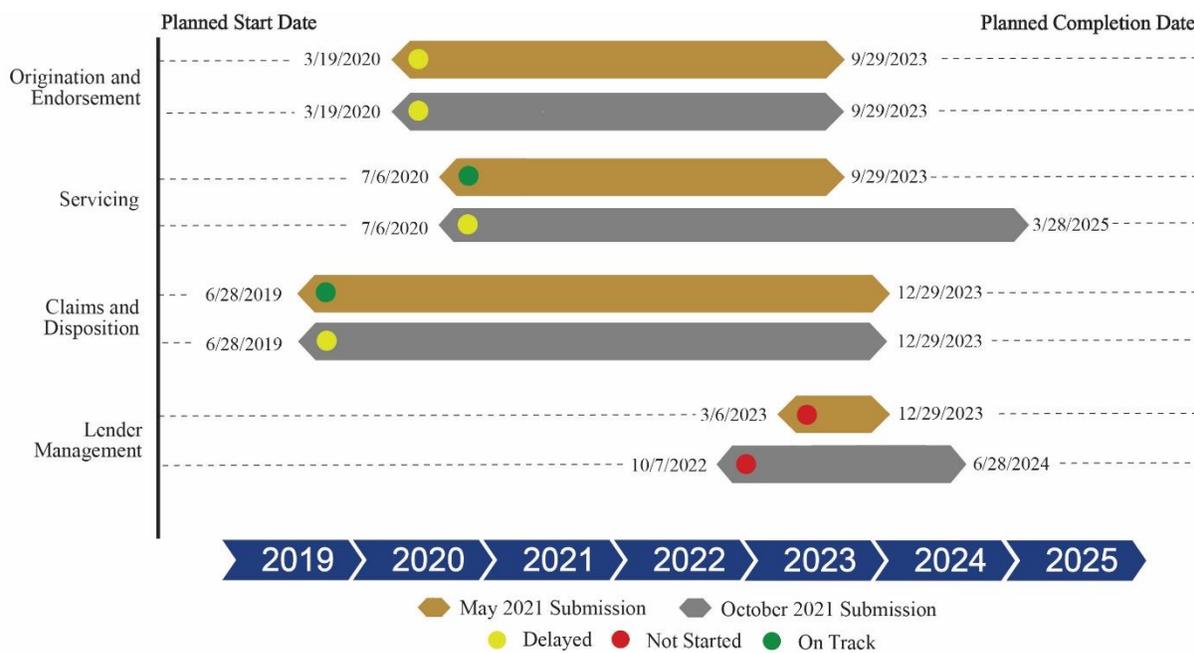
Pyramid Systems experienced significant staffing turnover during work stoppage. As a result of the TDL, on July 22, 2021, GSA canceled the stop work order and instructed Pyramid Systems to resume work on the SRISS contract after incorporating TDL language into the SRISS contract. Pyramid Systems resumed work on the contract at limited capacity as it had not been able to rehire all staff needed. As of August 2021, Pyramid Systems was still working to hire personnel to resume development at full capacity. During its weekly status meeting with HUD and GSA personnel involved with FHA Catalyst development, Pyramid Systems provides a development status update, identifies project risks, and updates attendees on staffing issues that impact development. An OCIO official within CDSO told us that Pyramid Systems continued to identify its staffing concerns as a project risk.

HUD Plans To Complete FHA Catalyst in March 2025

During the scope period of our IT Modernization Roadmap evaluation, HUD submitted its most recent performance plan to Congress in December 2020. In that report, we include the timelines for completing FHA Catalyst and note that HUD’s roadmaps change frequently to adjust goals, priorities, and timelines.

After we issued our IT Modernization Roadmap evaluation, HUD submitted its next official performance plan to Congress on May 25, 2021. In both the December 2020 and May 2021 performance plans, HUD’s estimated completion date for FHA Catalyst was December 29, 2023. Figure 2 below shows the planned and revised estimated completion dates as of October 2021.

Figure 2 – Estimated FHA Catalyst module completion dates as of October 2021



The scope period for this evaluation ended on August 31, 2021. As of the end of our fieldwork, the dates presented in figure 2 for the May 2021 submission remained the most current official estimated start and completion dates. However, OCIO officials told us during interviews that they planned to submit an updated performance plan to Congress in late September or early October 2021. At the conclusion of our fieldwork this performance plan was still being drafted but HUD later finalized it in October 2021. As part of the October 2021 performance plan, HUD projected two capabilities to be delayed further. Specifically,

- The Servicing module is now projected to be completed by March 28, 2025. This is 18 months after the previously planned completion date.
- The Lender Management module is now projected to be completed by June 28, 2024. This is 6 months after the previously planned completion date.

HUD did not revise the overall planned completion dates for the remaining two modules. The estimated completion date for the Claims and Disposition module has not changed, but the claims capabilities within this module have been delayed 4 months.²⁰ The Lender Management module has yet to begin, but the planned start date has been advanced approximately 5 months to now begin in October 2022. An OCIO official within CDSO told us that when preparing the revised estimated start and estimated completion dates, HUD considered Pyramid Systems' current limited capacity due to the staffing issues it is experiencing.

An OCIO official within CDSO told us that the estimated completion dates in figure 2 are based on several assumptions including that Pyramid Systems is able to reach full staffing levels and production levels in the near future. If the assumptions HUD made when preparing these revised dates do not materialize, additional delays to development may occur.

²⁰ According to HUD's performance plans, the claims capability is described as the digital submission of all single-family forward mortgage claim data and documents, including mainframe modernization for claims applications, claim eligibility, and payment processing.