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MISMO Update

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Agenda

- Overview of MISMO Implementation
- Managing Change in a Modernization
- Issuers' Role in Adoption
- Sneak Peak: Validation and Testing Tool (VTT)
- Sneak Peak: Single-Family Pool Delivery Module (SFPDM)



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Overview of MISMO Implementation

Overview of MISMO Implementation

Background

Ginnie Mae has adopted the MISMO standard to create the Pool Delivery Dataset (PDD) to better align to industry standards, improve data quality, and improve the Issuer's delivery experience. The following are changes to the electronic process for submitting loan and pool data to Ginnie Mae:

- Moving from flat file deliveries to the PDD extensible markup language (XML) format.
- Developing a new MISMO Compliant Single Family Pool Delivery Module (SFPDM).
- Developing the Validation and Testing Tool to validate XML files prior to pool submission.

MISMO SFPDM Scope

The following are the major MISMO SFPDM business processes created to re-organize the in-scope processes from GinnieNET and Stakeholders. Issuers will continue to use GinnieNET for submitting multifamily and HECM pool and loan data; however, submission of the PDD for single family at issuance pool and loan will be done through the MISMO SFPDM.

PROJECT OWNERS
<ul style="list-style-type: none"> • Office of Enterprise Data & Technology Solutions (OEDTS)
STAKEHOLDERS
<ul style="list-style-type: none"> • Office of Securities Operations (OSO) • Office of Issuers & Portfolio Management (OIPM) • Issuers • Document Custodians



* **Pool Issuance for Immediate Transfer (PIIT)** is not in scope for the initial release of SFPDM. PIIT pools will continue to be accepted in GinnieNET.



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Approach to MISMO Implementation

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The solution approach is to modernize the pool and loan submission process currently employed by Ginnie Mae. The scope for the MISMO SFPDM is limited to the submission and processing of single family at-issuance data for forward mortgages, but includes:

- **MISMO SFPDM Functionality** – Issuers will interact with the SFPDM to submit pool and loan data in PDD format. This module includes updates to the user interface for the electronic HUD forms 11705 and 11706.
- **Ginnie Mae Business Rules for Single Family MBS** – The collection of business rules that will be used to check that submitted pools and loans adhere to Ginnie Mae's policies and system requirements.
- **Translation Layer for MISMO SFPDM** – The application logic which translates XML data into legacy formats.
- **PDD XML Validation and Testing Tool** – A companion tool to allow users to submit PDD XML files to validate structure and run Business Rule checks without further processing.

Benefits



Improves data quality and integrity

by providing clearly defined data elements and requirements for pool and loan submission.



Improves consistency of documentation

by creating a baseline dataset with consistent naming conventions for Issuers to utilize for reporting purposes and improving business processes to support greater transparency of data.



Improves workflows

by operating and managing information similar to other major entities in the mortgage industry; using the PDD, Issuers, Investors, and Ginnie Mae can expect fewer data errors and lower costs associated with data collection.



Improves adaptability/flexibility

by enabling Ginnie Mae to easily modify the dataset in the future to match growing business needs.

Implementation Status



Ongoing Activities

- Completing Internal Testing
- Completing Documentation
- Preparing Training Materials

Upcoming Activities

- Release Updated PDD
- Support Issuer MISMO Adoption
- Train Selected Issuers on Self-Serve **Validation and Testing Tool**

* The length of each phase as depicted above does not proportionally represent the duration of the phase.



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Managing Change in a Modernization

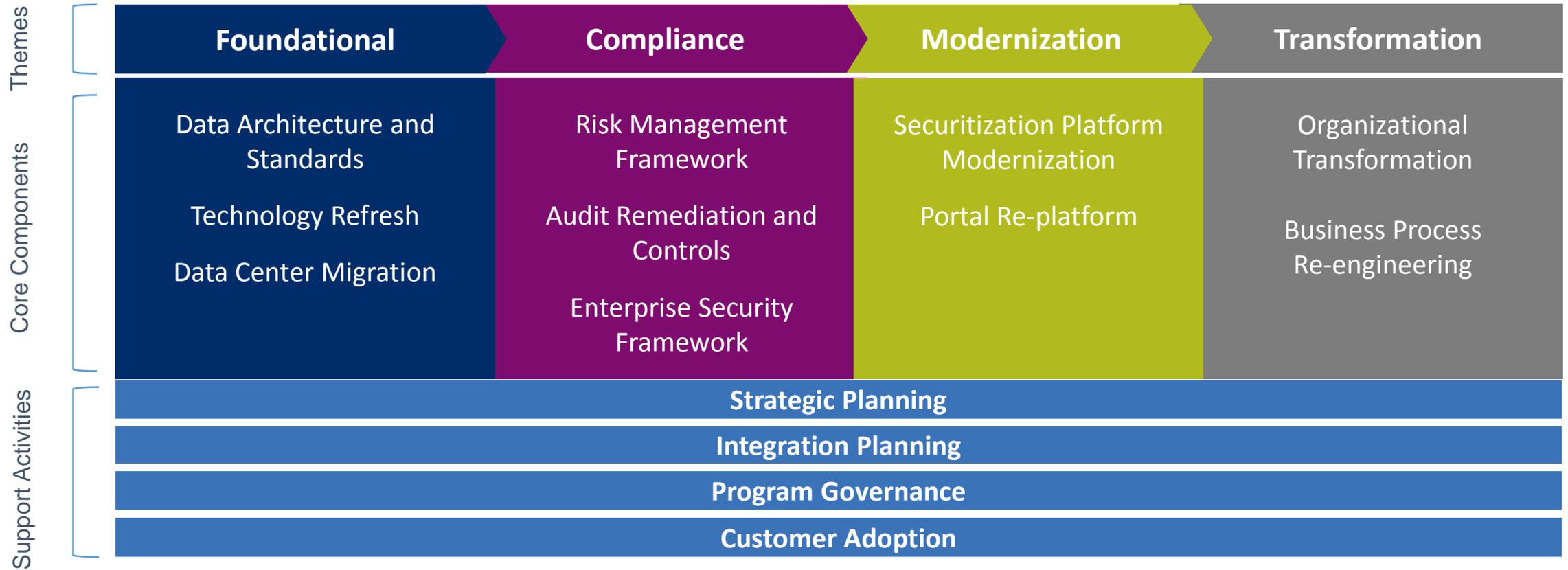


Ginnie Mae's Modernization Program

Ginnie Mae's MISMO Adoption Project is part of a larger enterprise-wide modernization effort.

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Managing the Change Process

Managing change is a key theme in Ginnie Mae's MISMO Adoption efforts and its overarching Modernization Program.

After Determining the Need for Change:



Getting Buy-In for Change

Preparing and Planning for Change

Implementing the Change

Sustaining the Change



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Issuers' Role in Adoption

Preparation for Issuers

Have a General Awareness

- Understand the general solution and adoption approach
- Be familiar with the available resources (e.g. MISMO Adoption Support Team, PDD releases)
- Stay in contact with Ginnie Mae



Be Prepared for Adoption

- Begin adoption of PDD standards
- Submit test files to MISMO Adoption Support Team for validation against XML schema



Seek Assistance

- Submit questions to MISMO Adoption Support Team



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Sneak Peak: Validation and Testing Tool (VTT)



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Validation and Testing Tool Overview

The Validation and Testing Tool verifies XML file structure and adherence to Ginnie Mae Business Rules, allowing Issuers to validate their files prior to SFPDM submission.

Background

The PDD XML Validation and Testing tool is a component of the Single Family Pool Delivery Module (SFPDM) that allows earlier and independent validation of single family MISMO file archives.

Purpose

The Validation and Testing Tool is intended for Issuers to test and validate their submission files prior to processing by the SFPDM.

Process

Validations on structure and content are performed via a three step process:

- **PDD XML .zip file** is uploaded into the tool.
- **Structural validations** verify XML file structure.
- **Business Rule validations** validate the file's adherence to Ginnie Mae's Business Rules.



XML File Upload for Validation

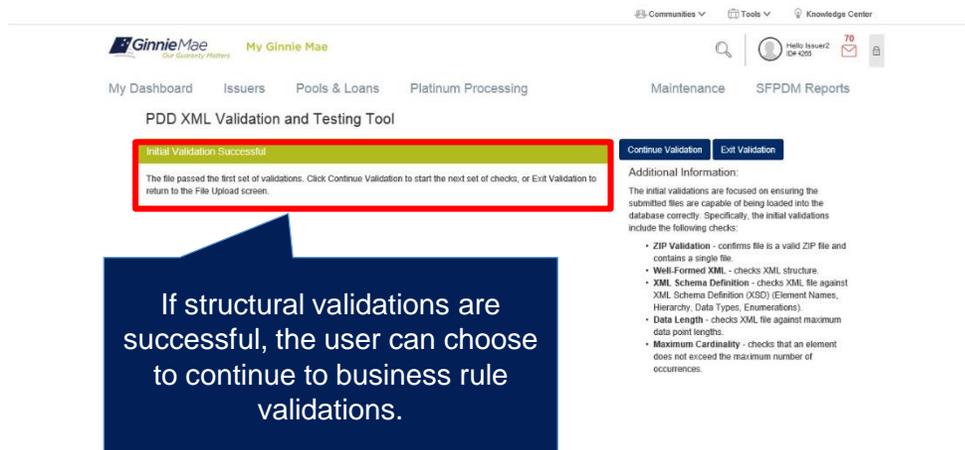
Issuers should use the Validation and Testing Tool to validate the file before submitting to SFPDM.

The screenshot shows the Ginnie Mae web application interface. At the top, there are navigation links for 'Communities', 'Tools', and 'Knowledge Center'. The main header includes the Ginnie Mae logo and 'My Ginnie Mae' text. Below the header, there are navigation tabs for 'My Dashboard', 'Issuers', 'Pools & Loans', 'Platinum Processing', 'Maintenance', and 'SFPDM Reports'. The main content area is titled 'PDD XML Validation and Testing Tool'. It contains a text prompt: 'Please select the PDD XML file you would like to test.' Below this, there is a 'File input' section with a text box and a 'Browse...' button highlighted with a red box. A 'Test File' button is located below the text box. To the right of the main content area, there is an 'Instructions' section with four numbered steps: Step 1: Click 'Choose File', select the PDD XML file, and click 'Open'. Step 2: Verify the file is chosen by the text to the right of the 'Choose File' button. Step 3: Select whether to view the results report in a separate window. Step 4: Click 'Test File' to begin the validation and testing process. Below the instructions, there is a note: 'Note: The status bar at the bottom of the tool will provide information on the progress of the test.'

Validation Results

Results of validation include a successful or failed file verification. The Validation and Testing Tool supports both structural and business rules validations.

“Success” Screen



Initial Validation Successful

The file passed the first set of validations. Click Continue Validation to start the next set of checks, or Exit Validation to return to the File Upload screen.

[Continue Validation](#) [Exit Validation](#)

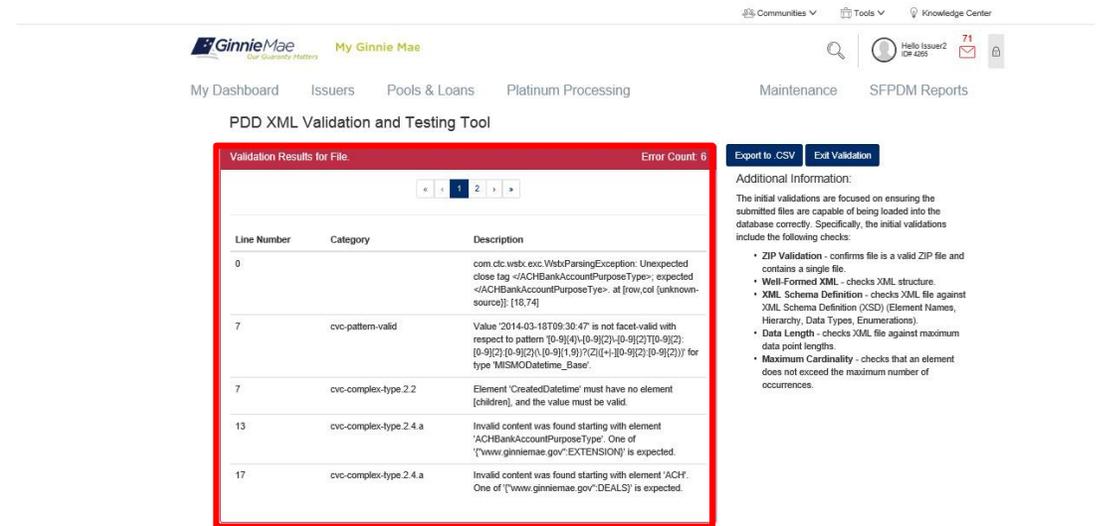
Additional Information:

The initial validations are focused on ensuring the submitted files are capable of being loaded into the database correctly. Specifically, the initial validations include the following checks:

- **ZIP Validation** - confirms file is a valid ZIP file and contains a single file.
- **Well-Formed XML** - checks XML structure.
- **XML Schema Definition** - checks XML file against XML Schema Definition (XSD) (Element Names, Hierarchy, Data Types, Enumerations).
- **Data Length** - checks XML file against maximum data point lengths.
- **Maximum Cardinality** - checks that an element does not exceed the maximum number of occurrences.

If structural validations are successful, the user can choose to continue to business rule validations.

“Errors Encountered” Screen



PDD XML Validation and Testing Tool

Validation Results for File. Error Count: 6

Line Number	Category	Description
0		com.clc.wsbx.exc.WebParsingException: Unexpected close tag <ACHBankAccountPurposeType>, expected </ACHBankAccountPurposeType>. at [row,col (unknown-source)]: [18,74]
7	cvc-pattern-valid	Value '2014-03-18T09:30:47' is not facet-valid with respect to pattern '[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}([0-9]{1,9})?Z [+]{1}[0-9]{2}:[0-9]{2}([0-9]{1,9})?Z'.
7	cvc-complex-type.2.2	Element 'CreatedDatetime' must have no element [children], and the value must be valid.
13	cvc-complex-type.2.4.a	Invalid content was found starting with element 'ACHBankAccountPurposeType'. One of '{www.ginniemae.gov}:EXTENSION' is expected.
17	cvc-complex-type.2.4.a	Invalid content was found starting with element 'ACH'. One of '{www.ginniemae.gov}:DEALS' is expected.

[Export to CSV](#) [Exit Validation](#)

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If structural validation errors occur, use the error's Line Number to determine the element within the code that is causing the error. Then, locate this element in Appendix D to determine the appropriate XPath as well as accepted values and enumerations.

Key Takeaways: Validation and Testing Tool



Users can validate their XML files using the tool prior to submitting to Ginnie Mae for processing.



Structural validations search for errors in the XML file structure while Business Rule validations search for Business Rule errors.



Users can locate solution references for validation errors in the Validation and Testing Tool Quick Reference Guide.



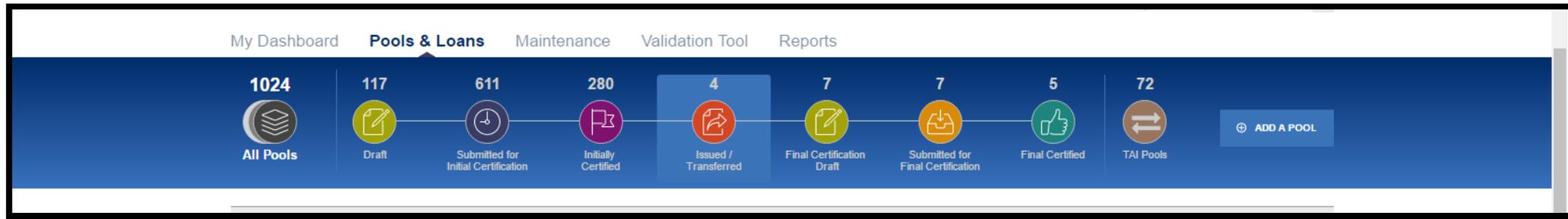
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Sneak Peak: Single-Family Pool Delivery Module (SFPDM)

The New User Experience with SFPDM

Users will experience many enhancements in their pool processing workflow with the SFPDM interface.



User Interface

- The SFPDM application features an enhanced and more user-friendly interface than the GinnieNET system
- The dashboard offers increased transparency into pool processing workflow

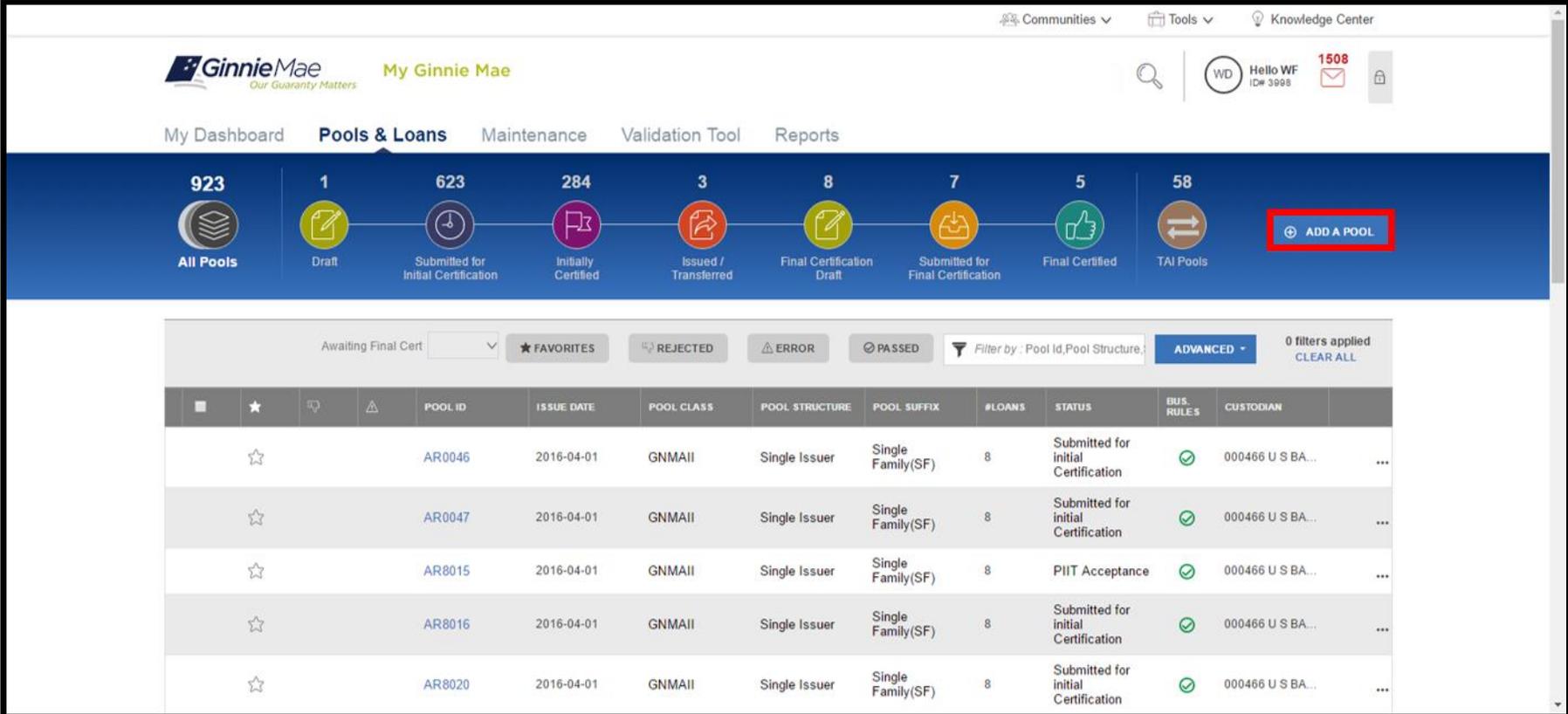
Navigation, Search and Sort Capabilities

- The SFPDM solution offers the ability to search and sort pools in a streamlined, efficient manner
- Navigation capabilities have been enhanced

Pool and Loan Modeling and Processing

- SFPDM offers the ability to simulate the effect of removing a loan from a pool prior to deleting the loan
- Uploading pools page, view pool and loan details, validate and submit pools

Functionality Explained: Upload Pools for Processing

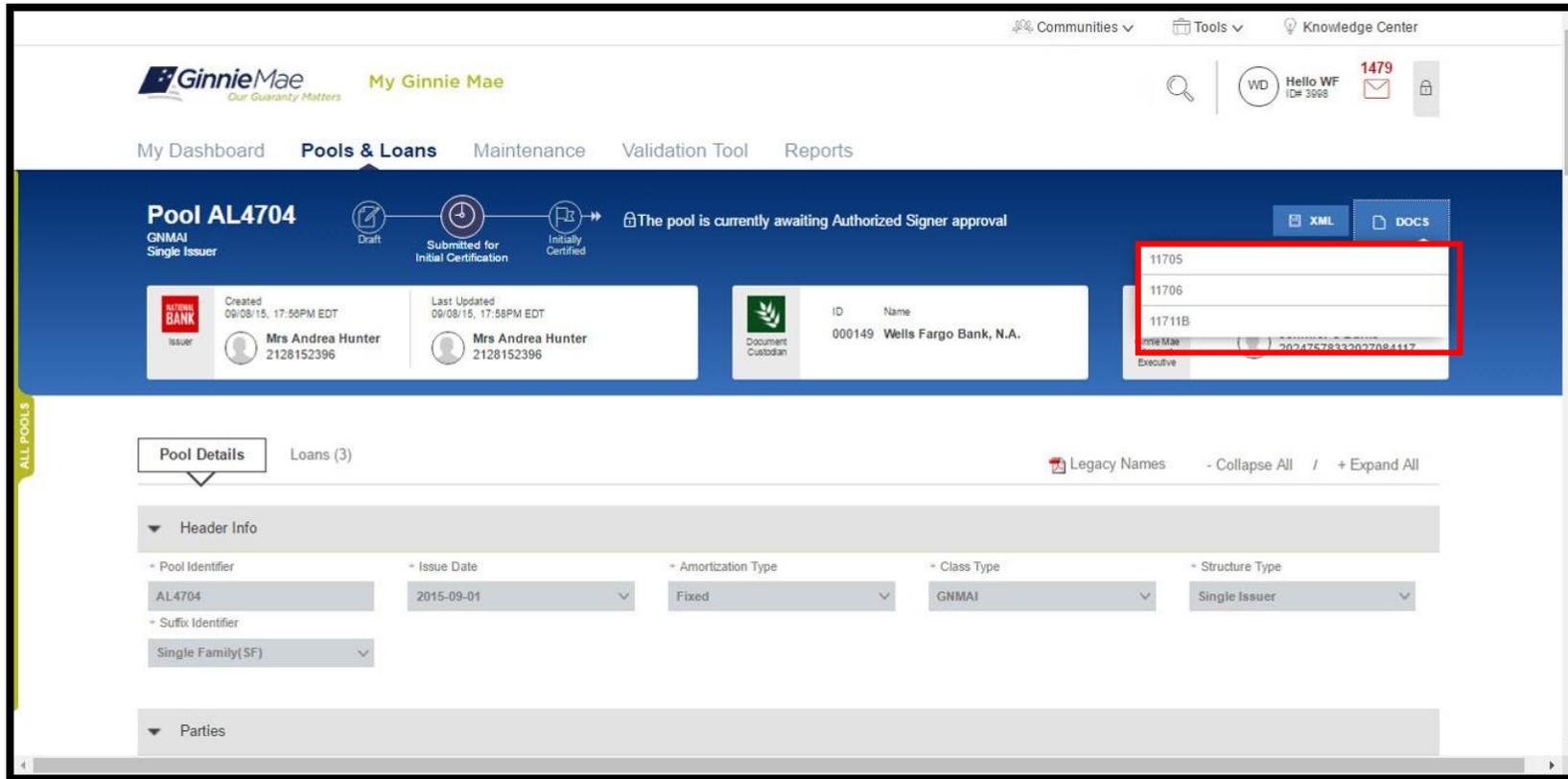


The screenshot shows the Ginnie Mae My Ginnie Mae dashboard. The 'Pools & Loans' section is active, displaying a progress bar with the following counts: All Pools (923), Draft (1), Submitted for Initial Certification (623), Initially Certified (284), Issued / Transferred (3), Final Certification Draft (8), Submitted for Final Certification (7), Final Certified (5), and TAI Pools (58). The 'ADD A POOL' button is highlighted with a red box.

	POOL ID	ISSUE DATE	POOL CLASS	POOL STRUCTURE	POOL SUFFIX	#LOANS	STATUS	BUS. RULES	CUSTODIAN
☆	AR0046	2016-04-01	GNMAII	Single Issuer	Single Family(SF)	8	Submitted for initial Certification	✓	000466 U S BA...
☆	AR0047	2016-04-01	GNMAII	Single Issuer	Single Family(SF)	8	Submitted for initial Certification	✓	000466 U S BA...
☆	AR8015	2016-04-01	GNMAII	Single Issuer	Single Family(SF)	8	PIIT Acceptance	✓	000466 U S BA...
☆	AR8016	2016-04-01	GNMAII	Single Issuer	Single Family(SF)	8	Submitted for initial Certification	✓	000466 U S BA...
☆	AR8020	2016-04-01	GNMAII	Single Issuer	Single Family(SF)	8	Submitted for initial Certification	✓	000466 U S BA...

Upload Pools for Processing

Functionality Explained: Export Pools in Standard Reports



The screenshot shows the 'My Ginnie Mae' interface for pool AL4704. The status is 'Submitted for Initial Certification' and it is awaiting an Authorized Signer approval. The issuer is Mrs. Andrea Hunter from Alterra Bank. The document custodian is Wells Fargo Bank, N.A. A red box highlights the 'XML' and 'DOCS' buttons, and a table of export options.

11705
11706
11711B

Below the pool details, the 'Pool Details' section shows the following information:

- Pool Identifier: AL4704
- Issue Date: 2015-09-01
- Amortization Type: Fixed
- Class Type: GNMAI
- Structure Type: Single Issuer
- Suffix Identifier: Single Family(SF)

Export Pools in Standard Reports

Functionality Explained: Recall Pool from Certification

Pools may be recalled (or deleted from the network) up to the point of Document Custodian retrieval from GinnieNET.



If a pool has been certified by the Document Custodian (and included in the 9:00 PM sweep), the pool can be deleted from the network up to 12:00 PM EST the day following certification.

Functionality Explained: Process Initial and Final Certification

The SFPDM application utilizes a user-friendly interface and transparent workflow to promote an intuitive user experience for pool processing.



The pool processing training session focuses on the process of uploading, editing, and submitting PDD data. Users will be shown how to navigate through the SFPDM, manage pools, and change erroneous pool data to meet Ginnie Mae requirements.

To enhance the user's knowledge of SFPDM pool processing, the following processes will be discussed:

Processing for Initial Certification

- Review and edit PDD data fields
- Run Business Rules for Certification
- Submit Pool for Initial Certification
- Recall Pool from Initial Certification

Processing for Final Certification

- View Pool Status
- Loan Substitution
- Submit Pool for Final Certification
- Recall Pool from Final Certification



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Functionality Explained: Certification Response from Document Custodian

1



Issuers will use the SFPDM to upload and submit single family pools as well as view pool status.

2



Document Custodians will continue to use GinnieNET to review and certify pools.



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Other SFPDM Functionalities

- View Pool Information and Status
- Review Pool and Loan Details by Authorized Signer
- Notification of Pool Submission
- Substitute Loans
- Submit Pool for Final Certification



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Key Takeaways: SFPDM Application



Pools initially certified in GinnieNET must be final certified in GinnieNET.



Issuers upload, view, edit, recall, validate, and submit pools for initial and final certification through the SFPDM.



The SFPDM allows Issuers to submit Single Family Pools in PDD-compliant XML file format.



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