

Automating Servicing Tasks with Enhanced Information Exchange

Explore the number of ways McCracken can help you automate your day-to-day tasks, including available and future API



Agenda Synopsis

- How and Where to Identify Automation Opportunities
- Types of Automation around Data (In, Out and Between Systems)
 - MaTi Mapping Tools - Current, In Process & Future
 - Report Export Mapping Tool – In Process
 - API – The New Information Exchange - Current, In Process & Future
- Evaluating the Different Tools
 - New Loan Boarding
 - Scenario of Payment Processing Mapping Tool, API - Incoming Wire & Bulk Uploader
- Summary of Automation Tools with McCracken's Strategy

Current Reality of Demand for Automation

Between March 2019 – March 2022, 4.5 million people quit their jobs!

- Resource Scarcity
- Lost Expertise & Knowledge

What else can we do to better leverage existing resources and gain efficiencies?

Efficiency & Resource Management

Need to fill operational gaps through innovation

- Quicker more efficient Workflows plus (+)
- Reduce Administrative oversight

= Maximizing your resources

How to Identify Opportunity

Analyze Life Cycle to Identify Pain Points and evaluate them accordingly for your organization

Origination → Closing → New Loan Setup

Servicing Loan Life Cycle → Payments → Inv. Remittance

Covenant Tracking → Financial Data Collections

Vendor Management → 3rd Party Information

Modification → Asset Resolution (Payoff, Debt Forgiveness)

Reporting, Monitoring or KPI

Day-to-Day Servicing Tasks

Day-to-Day Servicing Tasks:

- New Loan Setups (Terms, Properties, Critical Drivers)
- Daily, Weekly, Monthly or Quarterly Recurring Activity
- Special Event Activity
- Outsourcing
- Asset Resolution

How to Identify Automation Opportunities

Opportunities for Automation:

- Manual and/or Repeatable Tasks (Frequency & Volume)
- Resource Strain in Existing Process
- Re-deployment of Resources, Skilled positions re-focused
- Processes that require frequent re-work (Reversals, Bill Regenerations)
- Outsourced Services
- Time Constraints or Other Bottlenecks

Automation

DATA DATA DATA or DATA

- Information Exchange, Entry or Extraction

Data Automation

- ❖ Information Exchange, Entry or Extraction
 - ✓ Entering Data From System or Source to McCracken
 - New Loan Entry, Financial Statements, Indexes (or Indices)
 - ✓ Extracting Data From McCracken to another system or source
 - FHLMC Property Reporting, Remittance Reporting, Disbursements
 - ✓ Data Exchange Directly from system to system
 - FEMA Widget, Custom Integrations (TBD)

What things translate to automation

- ✓ Manual Entry of Data from Document, Email or alternate sources (Mapping Tool – Financial Statement, Index Upload)
- ✓ FHLMC Property Reporting, Remittance Reporting, Disbursements (“Export Mapping Tool”/API)
- ✓ Data Exchange Directly from system to system
 - FEMA Widget, Custom Integrations (Origination System to Strategy)

Evolution of Data Automation

- ❖ MaTi - Mapping Tool Interface
- ❖ Report Export Mapping Tool – Export into formatted report (NEW)
- ❖ API – Application Programming Interface

MaTi – Eliminate Manual Entry

- Imports any spreadsheet into the system with a one-time mapping
- All future spreadsheets are automatically recognized allowing instantaneous uploading
- Functionality will be available for PDFs (verify when)
- Creates a complete audit trail & enforces all business edits as if the info was manually entered

Upload New Spreadsheet

Session Options

UCC Template

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
Row 1		state	county	city	filing type	filed against	
Row 2	UTLNN	UTFSTA	UTFCOU	UTFCTY	UTTYPE	UTFA	UTDBTN
Row 3	107329	CO	ELP		S	Fixture Filing	WOODLAND PARADISE CORPORA
Row 4	109534	IL	COO		S	Fixture Filing	BIT HOLDINGS THIRTY-SEVEN
Row 5	109546	TV	DAL	Houston	S	Fixture Filing	JOSEY-TRINITY MILLS
Row 6	109581	IL	LAK		S	Fixture Filing	HERBERT J. KENDALL TRUST
Row 7	109729	DE	ARL		S	Fixture Filing	JBG/ROSSLYN GATEWAY NORTH
Row 8	10978000	CA	CLA		S	Fixture Filing	EQUUS LAS VEGAS ASSOCIATE
Row 9	109801	CA	SNC		C	Fixture Filing	NEXUS EQUITY II LLC
Row 10	109810	TX	SNC		S	Fixture Filing	NEXUS EQUITY II LLC
Row 11	109820	GA	COB		C	Fixture Filing	TOWN CENTER PARTNERS LP
Row 12	109834	GA	COB		C	Fixture Filing	TOWN CENTER PARTNERS LP
Row 13	109844	NV	CLA		S	Fixture Filing	SCOTT INDUSTRIAL LLC
Row 14	109864	IL	COO		S	Fixture Filing	LASALLE NATIONAL TRUST NA
Row 15	109878	FL	PAL		S	Fixture Filing	SGB INVESTMENTS INC.
Row 16	109886	WA	SNO		C	Fixture Filing	ARTHUR W. & MARIANNE SKOT
Row 17	109903	WA	SNO		S	Fixture Filing	ARTHUR W. & MARIANNE SKOT
Row 18	109933	CA	ORA		S	Fixture Filing	CABALLERO BOULEVARD PROP.
Row 19	109937	CA	SNC		S	Fixture Filing	CARIBBEAN/GENEVA INVESTOR
Row 20	109958	AZ	MAR		C	Fixture Filing	OLD COLONY FINANCIAL
Row 21	109961	FL	INR		S	Fixture Filing	PORT EVERGLADES RES. AND

Check All Uncheck All

	LOAN NUMBER	SEQ #	STATE	COUNTY	CITY	FILING TYPE	FILED AGAINST
Row 1							
Row 2							
Row 3	107329	1	CO	ELP		S	Fixture Filing
Row 4	109534	1	IL	COO		S	Fixture Filing
Row 5	109546	1	TV	DAL	Houston	S	Fixture Filing
Row 6	109581	1	IL	LAK		S	Fixture Filing
Row 7	109729	1	DE	ARL		S	Fixture Filing
Row 8	10978000	1	CA	CLA		S	Fixture Filing
Row 9	109801	1	CA	SNC		C	Fixture Filing
Row 10	109810	1	TX	SNC		S	Fixture Filing
Row 11	109820	1	GA	COB		C	Fixture Filing
Row 12	109834	1	GA	COB		C	Fixture Filing
Row 13	109844	1	NV	CLA		S	Fixture Filing
Row 14	109864	1	IL	COO		S	Fixture Filing
Row 15	109878	1	FL	PAL		S	Fixture Filing
Row 16	109886	1	WA	SNO		C	Fixture Filing
Row 17	109903	1	WA	SNO		S	Fixture Filing
Row 18	109933	1	CA	ORA		S	Fixture Filing
Row 19	109937	1	CA	SNC		S	Fixture Filing
Row 20	109958	1	AZ	MAR		C	Fixture Filing
Row 21	109961	1	FL	INR		S	Fixture Filing

Data did not pass validation: business rule violation View Errors Clear Data Edit UCC 2 Mapping Validate

MaTi Tools Pre 20

- ✓ Tax, Insurance, UCC and Reserves
- ✓ Index Rates and Insurance Agents & Companies
- ✓ New Loan Setup Files (aka. NFILES)
- ✓ Financial Statements, Appraisals, Rent Rolls & Inspections
- ✓ Bank, Investor and DDA Accounts
- ✓ Collateral and Property Allocation
- ✓ Miscellaneous Amounts and Miscellaneous Vendors
- ✓ Miscellaneous Files screens 1, 2 & 3

MaTi Enhancements @R20

- ✓ IRP Additions & GEO Codes Latitude and Longitude
- ✓ Insurance Analyst
- ✓ Deferred Revenue
- ✓ Incoming Wire (*Including Direct To Lender @20A)
- ✓ Pending ARM Changes
- ✓ Construction Budget Tools for Draws/Advances

Upcoming and Future Mapping Tools?

- ❖ Summarize Mapping Tools, uses and availability today pre and @ R20A
- ✓ Insurance Company Ratings
- ✓ Payment Information (*Direct to Lender Transactions)
- ✓ Management Company

Data Export Mapping Tool

- ❖ Allows for the Mapping of a Report generated from the Report Widget into a designated Spreadsheet Format

Export Mapping Tool



Associate Report with Spreadsheet

- Upload & Manage Spreadsheets

Welcome, DKRUM
Report Mapper

Mapping Association

Spreadsheet Maintenance

Batch Mode Reports

Association Parameters

Report

--

▼

Upload a Spreadsheet

Choose File

No file chosen

Saved Report

--

▼

Saved Spreadsheet

--

▼

Saved Mapping

--

▼

Ok

RWD

GANWIRES

19E

SD: 07/29/2021

09/09/2022

- Detail vs. Header Mapping View
- Map Report to Spreadsheet Layout
- Mapping is Saved Source to Destination

Mapping Edit

Mapping Association Batch Mode Reports

Report Layout - Original

☒ Detail ☐ Header

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	459	Yeing Medical Arts Building	925000.00	72327.51	0.00	2021-08-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7485.71	11500	Great West Life & Annuity Ins	0.00
2	720	Puppe Shelter	48500000.00	27076046.47	56075.00	2021-06-01	132106.05	0.00	0.00	1487736.47	0.00	0.00	107219.04	40672.64	323846.63	13100	TIAA-CREF	-192941.84
3	756	Clinkard Golf Club	3390000.00	934657.88	0.00	2021-07-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1935.14	24189.33	12900	State Farm Life Insurance Co	3345.00

Spreadsheet Layout - Destination

	1	2	3	4	5	6	7	8	9	10
1	This is header info									
2	Line 2									
3	Line 3									
4	Line 4									
5	Line 5									
6	Line 6									
7	Line 7									
8										
9										
10	Test Column 1	Test Column 2	Test Column 3	Test Column 4	Test Column 5	Test Column 6	Test Column 7	Test Column 8	Test Column 9	Test Column 10

Cancel Ok Apply Generate Report

Mapping Start Row Mapping Name/Desc

Created By User DKRUM Allow Access ☐

Original Column	Original Row	Destination Column	Destination Row
2	0	2	0
2	17	6	1

- Customize Headers

[illegible]



Strategy API's

The New Information Exchange

Strategy API's

With Release 20, new API's are introduced:

- Customer/Business Defined external API's
- Internal API's

What is an API?

- API = Application Programming Interface
 - Exposes data through a consistent documented interface
 - Accessed by anyone with valid credentials & correct parameters
- Public or Private
- Allows data access outside of standard Web UI framework

API Examples

- CRM Integrations
 - Either exposes data for use in other applications, or can pull data in
 - Join Strategy information with deposit system, etc.
- Industry APIs
 - MISMO
- FEMA Widget

What's available in Strategy

- Defined API's
 - New Loan Entry
 - Financial Statements
 - PINDEX
 - Freddie Mac XML – Property Reporting System
 - Insurance Agents
- Internal API's
 - Self Registering API's & MetaData



Defined API's

New Loan Entry

- API for Boarding of New Loans
 - “/info” – an API call to receive available new loan endpoints
 - `{"name":"McCrackenAPI","version":"19D.0.0_WLP_Build.9_26-Apr-2021_14:06","endPoints":["/info","/loanentry","/pinindex","/pininfo","/pinsco","/pinscorat","/psys"],"date":"05/13/2021_13:22:20"}`
 - “/loanentry” – API to onboard new loan
 - One or many loans can be submitted at a time
 - Can be run in real-time batch, or at day end
- Available post-R20

Loan Entry Files

- New File “KNLOAN”
 - Takes Loan Number(s) from API submission and checks for duplicates in the database
 - If duplicates are found – returns error message for that loan via API
 - If no duplicates, stores new Loan number for submission

Required Fields

- API must contain:
 - Loan Number
 - Investor Seq*
 - Property Seq*
 - UDF ID/Seq*
 - Tax Desc. Number *
 - System Escrow Num/Seq*
- Insurance Escrow/Seq
Num/Coverage Seq/Loi Seq*
- Name Seq*
- Asterisk fields applicable only when updating associated files

Available Loan Entry Files

- NMASTR - Master
- NCIF – Customer Information
- NARM – ARM information
- NUDFDATA – User Defined Fields
- NPROP - Property
- NIMST – Investor Master
- NOESC - Escrow
- NRBL - Balance
- NINSCV – Insurance Types/Coverage
- NINSLIN – Lines of Insurance
- NDMND – Balloon Loan
- NACCRU - Accruals
- NANAME – Name
- NTXDSC - Tax

API Responses

- Success – or –
 - Bad Request
 - Duplicate Loan
 - Strategy Locked

Freddie Mac XML – Property Reporting System

- Supports C4 Multifamily
- XML Output sent automatically to PRS through Direct API Integration
- Supports User & Password updates to sync with Freddie PRS system

Generated from Financial Statements

Loan Information

Loan Number750082305

InvestorIRP Master Serviced (750)

Investor Loan82305750

Fiscal Year End

Related Loans

Client Relations MgrRYLOWICZ, SUSAN [SR]

Processor Code

Loan TypeCONVENTIONAL (PURCHASED) [P]

Original Loan Date04/01/2014

Load Added Date04/19/2014

Product Line

Product Line Detail 1

Product Line Detail 2

Source Code

Hold Code

Collateral ID102

Property NameCircle Pointe (1)

Property Address177 Circle Pointe Drive Cleveland, OH 44115

Property Desc 1MULTI APARTMENT <100 UNITS [10]

Property Desc 2

View Detail

Property Maintenance

CMBS Property TypeMULTIFAMILY [MF]

BackValidateSaveDeleteStatus: IN PROGRESS01/06/2013Currently viewing statement # 5: 01/01/2014 - 03/31/2014 - 1ST QUARTER - PERIODIC STATEMENT - CREFC Multifamily

Date sent to investor:

CompareOSARGenerate & Send To NetworkExport to ExcelExport to CSVOSAR & Export to ExcelValuation

Loan Level Comments:

Income

Borrower Statement Line Item	Amount	Adjustment	Adjusted Amount	Map To Account	Adjustment Comment	Delete
Gross Potential Rent	375,000.00	0.00				
Less Vacancy Loss	550.00	0.00				
Base Rent	1,500.00	0.00				
Laundry / Vending Income	1,250.00	0.00				
Parking Income	750.00	0.00				
Other Income	550.00	0.00				
Income Eliminate	1,000.00	0.00	1,000.00	Eliminate		
EGI (Effective Gross Income)	379,500.00	0.00	379,500.00			

Single or Multiple Loan Selection

Single Loan

Multiple Loans

CMBS Reporting

Send XML to Freddie Mac

Assessment Date: 9/1/2019

BackNext

Expenses

Borrower Statement Line Item	Amount	Adjustment	Adjusted Amount	Map To Account	Adjustment Comment	Delete
Real Estate Taxes	1,375.00	0.00	1,375.00	Real Estate Taxes		
Property Insurance	225.00	0.00	225.00	Property Insurance		
Utilities	2,000.00	0.00	2,000.00	Utilities		
Repairs and Maintenance	3,875.00	-700.00	3,175.00	Repairs and Maintenance	New Management company ir	

Form Type:

CREFC Multifamily

Purpose:

PERIODIC STATEMENT

Frequency:

1ST QUARTER

Entered For:

Statement Source:

TEST

Auditor:

Contact:

Start Date:

1/1/2014

End Date:

3/31/2014

No. of months:

3.0

Debt Svc Note(s) A:

0.00

Debt Svc Note(s) B:

0.00

Debt Svc Note(s) C:

0.00

Allocation %:

100.00000

Rent Roll Seq:

Occupancy %:

92.00000

Occupancy Date:

03/31/2014

Possible Responses

- Success – or-
 - Unknown Loan Number
 - Invalid Login
 - Invalid XML Request
 - Etc.

Financial Statements via API

- Add or Update Financial Statements via API
- MaTi has been enhanced to automatically read a spreadsheet and upload the provided data
- API includes 2 RESTFUL endpoints
 - A. Uploads the customer's spreadsheet in base64 format
 - B. Once file is uploaded the API can be called to initiate the file processing

Financial Statement – Upload Spreadsheet

- Uses new Mapping Tool Template based on existing Financial Statement template
 - All mapped fields must contain values, or API will return an error
 - Existing calculation logic is preserved
- Multiple Statement Types can be uploaded with different Mappings
- Any validation errors are returned via JSON to the API
 - If no errors exist, a success message is returned

Necessary Parameters

- Upload API
 - Filename
- Processing API
 - User/Password/Data Library
 - Sheet to Process
 - Template Name
 - Associated Mapping
 - Filename from Upload API

Financial Statement – Process Data

When Validation is successful, second API passes data to Strategy for processing

- Supports Insert/Update
- Uses new POPMSTAPI template

PINDEX API

- Allows for single record Insert/Update/Delete of Index Rates (PINDEX)
 - For Insert, Rate Code (IXICOD) must exist in PINFO
- Allows Query of Index Rates with or without parameters
- Uses standard McCracken Security model
 - PINDEX changes via API stored in File Maintenance

Insurance Agent API

- Query of Insurance Companies (PINSCO/PINCO2)
- Insert/Update of Insurance Company Ratings (PINSCORAT)
 - VSRAGENCY must exist in PINFO
 - VSCOID must exist in PINSCO
 - Automatically selects appropriate Rating Agency (A.M. Best/Fitch/Moody's/S&P)
- Uses standard McCracken Security model




Internal API's

API Services

- API Service Layer
 - Standardized access to the Strategy engine
 - Reduces the tight coupling between front-end and back-end
 - Can be updated at will as long as API contracts are maintained
 - System Services: organized by function
 - Authorization, metadata, general
 - Business Services: organized by business domains
 - Loan data, Asset data, Accounting data, Insurance data, etc.
- API Documentation
 - API documentation generated when the service is built

Swagger API Documentation

 **swagger**

Select a spec default

Api Documentation ^{1.0}

[Base URL: 172.29.20.30:8080/loanAdministration]
<http://172.29.20.30:8080/loanAdministration/v2/api-docs>

Api Documentation
[Terms of service](#)
[Apache 2.0](#)

basic-error-controller Basic Error Controller

>

operation-handler Operation Handler

>

rest-api-r-20-controller Rest Api R 20 Controller

∨

GET /api/R20/loanAdministrationService/getNameAddress getNameAddress

GET /api/R20/loanAdministrationService/getPMASTR getPMASTR

POST /api/R20/loanAdministrationService/maintainNameAddress maintainNameAddress

POST /api/R20/loanAdministrationService/maintainPMASTR maintainPMASTR

web-mvc-links-handler Web Mvc Links Handler

>

Swagger (cont.)

rest-api-r-20-controller Rest Api R 20 Controller

GET

/api/R20/loanAdministrationService/getNameAddress

getNameAddress

Parameters

Try it out

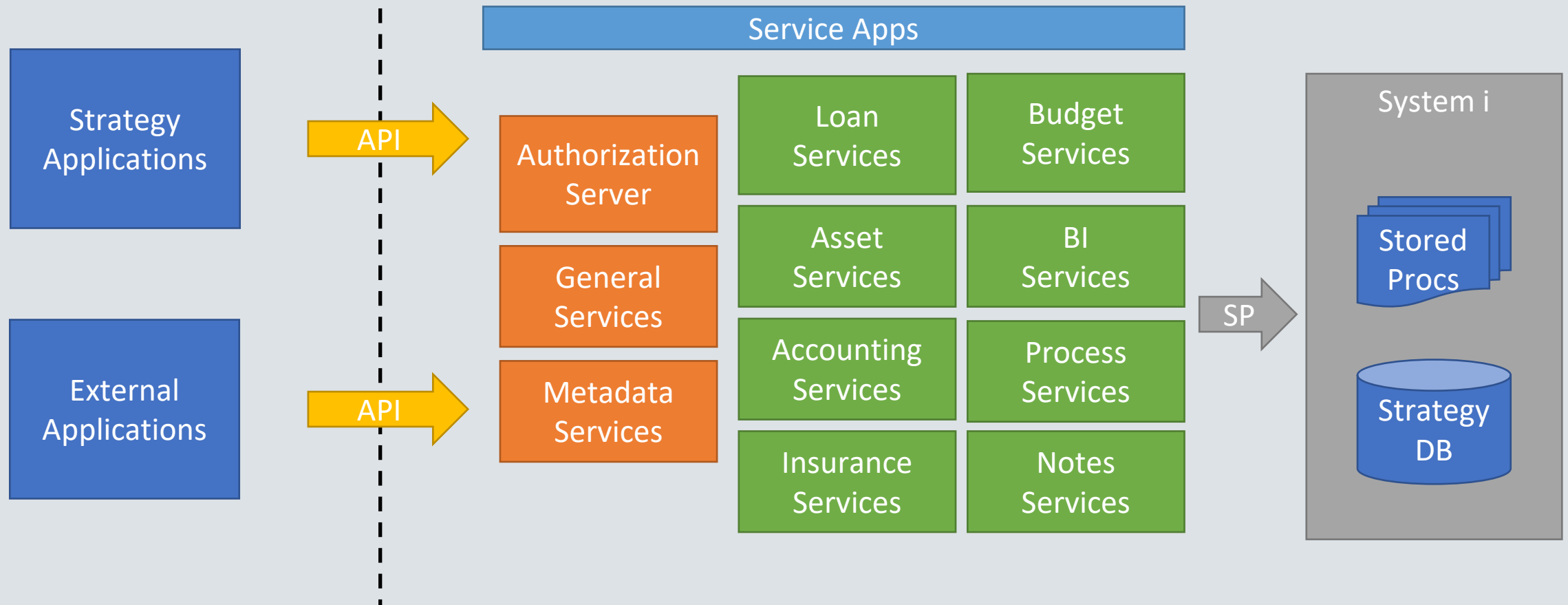
Name	Description
Authorization <small>required</small> string (header)	Authorization
CMLN <small>required</small> integer(\$int32) (query)	CMLN

Responses

Response content type application/json

Code	Description
200	<div>OK</div> <div>Example Value Model</div> <pre>{ "lkfmtad1": "string", "lkfmtad2": "string", "lkfmtad3": "string", "lkfmtad4": "string", "lkfmtad5": "string", "lkfmtad6": "string", "lknamid": 0, "mode": "string", "nmconam": "string", "nmemail": "string", "nmfax": "string", "nmfnael": "string", "nmLang": "string", "nmName": "string", "nmnamid": 0, "nmpcontac": "string", "nmphone": "string", "nmsntin": "string", "nmtaxid": 0, "recctn": 0, "recct2": 0, "sifful": "string", "tnias": "string", }</pre>
401	Unauthorized
403	Forbidden

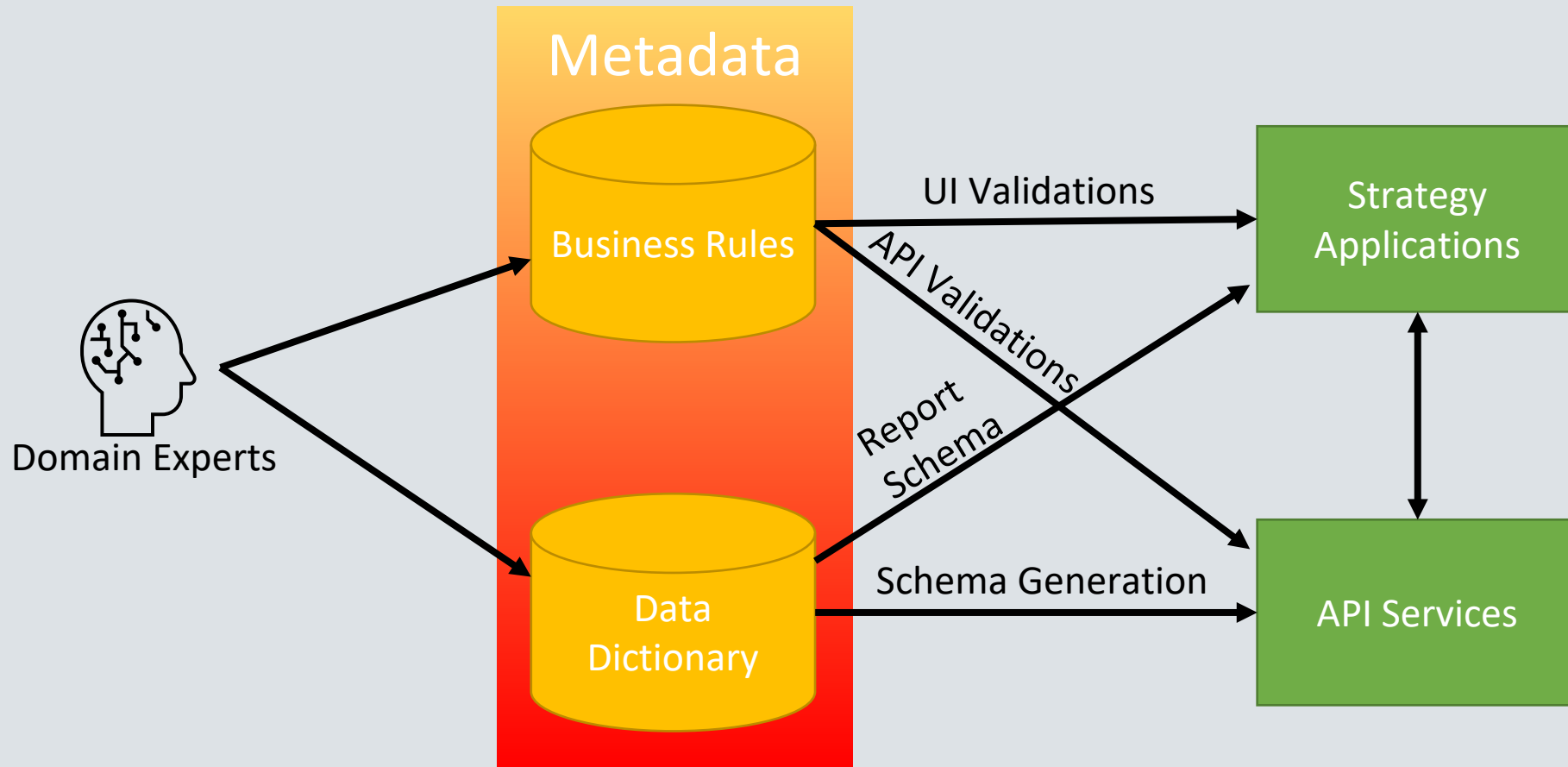
API Services



Strategy Metadata

- Data Dictionary
 - Documents Strategy database structure and elements
 - Provides schema definition for reporting module
 - Provides business definitions for all fields in the system
- Business Rules
 - Defines data conditions when rules (constraints) are applied
 - Constraints restrict available values for entry
 - Used to validate entered data and control UI behaviors
 - Provides business context on why constraints are applied

Strategy Metadata



Other APIs

Some additional things we're working on with our clients

- Expanded New Loan Boarding
- Tranche New Loan Setup – Master Credit Agreement/Credit Facility Loan Copy Function
- Payments Robotics
- Payoffs

Which Tools are Appropriate?

How do I know which to use?

- Source of Data
- Singular or Multiple File Structures
- Structured or Unstructured Process
- Resources: Technical and Physical
- Other?

MaTi/ Loan Entry Workbook/ API

New Loan Setup

- N Files Mapping Tool
- Loan Entry Workbook (“a.k.a. Smart Spreadsheets”)
- New Loan API

MaTi/ API

Financial Statements

- MaTi Financial Statement Mapping
- Financial Statement API



Payment Processing Examples

MaTi, API and Bulk Uploader

Payment Processing – MaTi, API or Bulk Upload

- Mapping Tool for Incoming Wire (*Direct to Lender @ 20A)
- Payment Processing API
- Bulk Payment Uploader Tool

Tool	Version	Source	Incoming/ Outgoing	Additional Notes	Use Case
Mapping Tool	Release 20	Wire File or Other Unstructured File	Incoming	* Direct-To-Lender Available @ 20A	Manually Retrieving Wire or other Payment Files
Payment API	Release 20	API	Incoming	Uses Lockbox Programming to Process Payments	Digital Banking
Bulk Payment Uploader	Release 20A	Any Unstructured File	Both	Uses Standard Transactional Edits as if Entering Manually	Various

MaTi - Incoming Wire Template

Upload New Spreadsheet

Session Options ▾

Incoming Wires Template

	Column A	Column B	Column C	Column D
<input type="checkbox"/> Row 1	Amount	Loan #	Date	comment
<input checked="" type="checkbox"/> Row 2	2.00	LOAN 60063312	08/06/2017	no app string and post to suspense override
<input checked="" type="checkbox"/> Row 3	3	LOAN 60063313	05/09/2020	bad date with suspense override on

	CURRENCY CODE	BANK PROCESSED DATE	BANK PROCESSED TIME	BANK VALUE DATE	WIRE AMOUNT	INVESTOR NUMB
Row 1						
Row 2		08/06/2017			2.00	
Row 3		05/09/2020			3	

Check All

Uncheck All

This spreadsheet matched a saved format. Current mapping selection, incoming wire shc, matches saved value. Current template selection matches saved value.

Clear Data

Edit incoming wire shc ▾

Validate

	Column A	Column B	Column C	Column D
<input type="checkbox"/> Row 1	Amount	Loan #	Date	comment
<input checked="" type="checkbox"/> Row 2	2.00	LOAN 60063312	08/06/2017	no app string and post to suspense override
<input checked="" type="checkbox"/> Row 3	3	LOAN 60063313	05/09/2020	bad date with suspense override on

	CURRENCY CODE	BANK PROCESSED DATE	BANK PROCESSED TIME	BANK VALUE DATE	WIRE AMOUNT	INVESTOR NUMB
Row 1						
Row 2		08/06/2017			2.00	
Row 3		05/09/2020			3	

Payment Mapping Tool

- Import File and Business Intelligence Attempts to Match Payments
- Auto-Posting using Lockbox Program
- Processing Manager Integration for Exception Handling
- Override Process
 - Identify & Allow to Post
 - Return Wire
 - Process to Suspense
 - Identify and Post Manually for Unmatched

Magic behind MaTi (find the loan number)

Four Info Fields

- Looks for 'Loan', 'Ln', or 'Loan Payment'
- 'Reference', 'Ref', 'Re', or 'Asset'
- '#', 'No' or 'Number'
- Sequence of numbers with min length of 3 digits and maximum length of 9

OR

Checks Active Name records

- Identify the Originator of the Wire, Compare with the Primary Borrower records
- Looks for Bank/DDA# in the incoming record
- Identifies assoc. Loan(s)

Loan Number found

- Can amount be processed as Regular Payment. or Misc. Amount and payment strings (the Lockbox standard programs is used)

Creating Wire Records After Matching

Wire Marked as 'Unmatched (U)' Or Multiple Records (M)

Loan # not identified

No matching Bank/DDA#

No matching Loan for Name

Name tied to multiple Loans

Exception Processing:
Process starts to assign someone to manually ID the Loan & Process Payment

Wire Marked as 'Loan Matched (L)'

Loan # Identified

Wire Amount does not match open receivable records for Reg Payment or Misc. Amount.

Exception Processing:
Process starts to assign someone to Process Wire Amount

Wire Marked as 'Auto Matched (A)'

Loan # Identified

Wire amount can be processed as Reg Payment or Misc. Amt.

No Process Required
Post Matched Payments

Processing Status and Post Status

Posting Matched Payments

Process Status= Post

- The payment runs thru the standard lockbox looking for regular payment and Misc payment that are due
- Utilizes Payment strings if they are on the loan.
- Or the override post suspense=Y
- The Post status will be come = 'Processed and Posted'

Unable to Post

Process Status =Do Not Post

- Options to resolve
 - Identify the loan #
 - Correct amount due
 - Put payment strings on the loan
 - Change override post to suspense= Y
- Update Process Status override, this closes out the record and you can't post.

OTHER (O)
POST USING TRANS PROCESSING (P)
RETURNED (R)
WIRE RECALLED (W)
MANUAL UNMATCHED (X)

API “Amazing Payment Improvement”

- Import File and Business Intelligence Attempts to Match Payments

- Example request body:

- {
- "action": "insert",
- "loanNumber": "123456789",
- "paymentAmount": "123456789012345.67",
- "affectiveBackdate": "2022-06-01"
- }
-

- Example response body:

- {
- "action": "insert",
- "status": "success",
- "recordCount": 1,
- "message": "1 records inserted"
- }

JSON Schema

- JSON Schema

```
• {
•   "$schema": "http://json-schema.org/draft-07/schema#",
•   "title": "Incoming Regular Payment",
•   "definitions": {
•     "loanNumber": {"type": "string", "pattern": "^[0-9]{1,9}?$"},
•     "dateFormat": {"type": "string", "format": "date"},
•     "paymentFormat": {"type": "string", "pattern": "^[0-9]{0,13}(\\.[0-9]{0,2})?$$$"}
•   },
•   "type": "object",
•   "properties": {
•     "action": {"enum": ["insert"]}
•   },
•   "allOf": [
•     {
•       "if": {
•         "properties": {"action": {"const": "insert"}}
•       },
•       "then": {
•         "properties": {
•           "loanNumber": {"$ref": "#/definitions/loanNumber"},
•           "paymentAmount": {"$ref": "#/definitions/paymentFormat"},
•           "effectiveBackDate": {"$ref": "#/definitions/dateFormat"}
•         },
•         "required": ["loanNumber", "paymentAmount", "effectiveBackDate"]
•       }
•     }
•   ]
• }
```

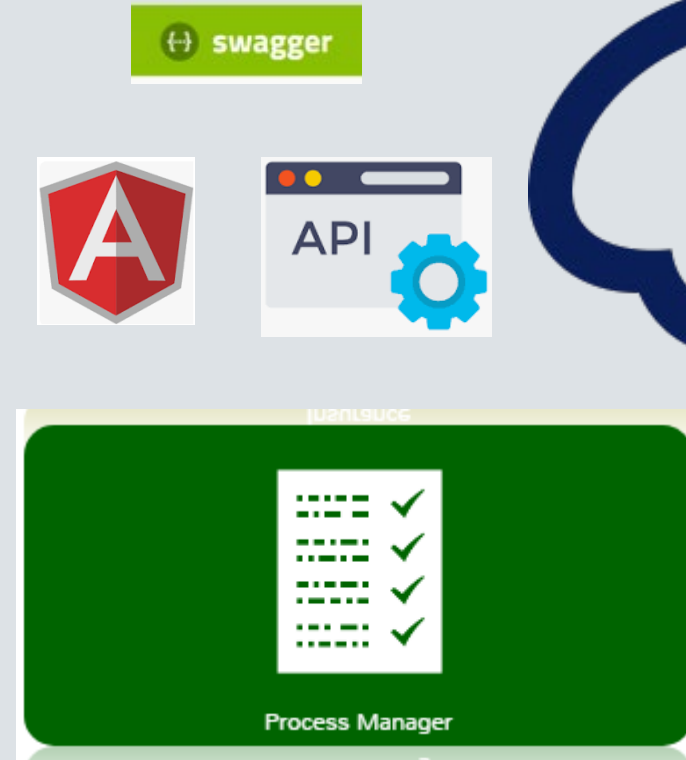
Bulk Uploader

- Designated MaTi Template
- Uses Standard Transaction Edits
- Reports to Manage Exceptions with Error Handling (“No Billing Record Exists for this Loan”)
- Incoming Payment Transactions, Disbursement Transactions, Reversals Transactions, Processing from Suspense and “40” Adjustments

Trans Code Internal Type	Full Description	Short Description	External Type Trans Code
02	PAYMENT REC'D	PMT REC'D	10 & 70
08	PRINCIPAL CURTAILMENT	PRINC PMT	11 & 71
09	RE TAX ESCROW PAYMENT	TAX PMT	14 & 74
10	ESCROW 2 PAYMENT	INS PMT	14 & 74
12	RESERVE PAYMENT	RESRV PMT	14 & 74
29	R.E. TAX DISBURSEMENT	TAX DISB	31
32	ESCROW 2 DISBURSEMENT	INS DISB	32
33	RESERVE DISBURSEMENT	RESRV DISB	33
19	PRINCIPAL DEBIT	PRINC DR	40
20	INTEREST DEBIT	INTEREST D	40
21	R.E. TAX DEBIT	R.E. TAX D	40
22	ESCROW 2 DEBIT	INS DR	40
23	RESERVE DEBIT	RESERV DR	40
24	ESCROW 4 DEBIT	ESC 4 DR	40
48	ESCROW 2 CREDIT	INS CR	40
54	MISC RECEIVABLE CREDIT	MIS RCV CR	40
42	PAYMENT REVERSAL	PMT REV	42

Comprehensive Suite of Automation Tools

- MaTi – Mapping Tool
- Intelligence & Rules Engine
- Process Manager
- Report Export Mapping Tool *
- Reporting Dashboard *
- Strategy 2.0 courtesy of Angular*
- Machine Learning *



Questions?