Loan Underwriting Application

Responsive desktop experience

Designing a tool for a mid-sized financial services provider to process billions of dollars in loan transactions each day

MTAP

PROJECT OVERVIEW

Discovery + Design

Current state audit of screens / flows / patterns

Stakeholder interviews

User interviews / usability test current state

Mapping current state / user journeys

Dual track backlog creation and prioritization with technology

Sketching

Wireframing

Moodboards

Visual identity / patterns

Full design concepts

Future state mapping

Design + Build

Support and inform user stories / development

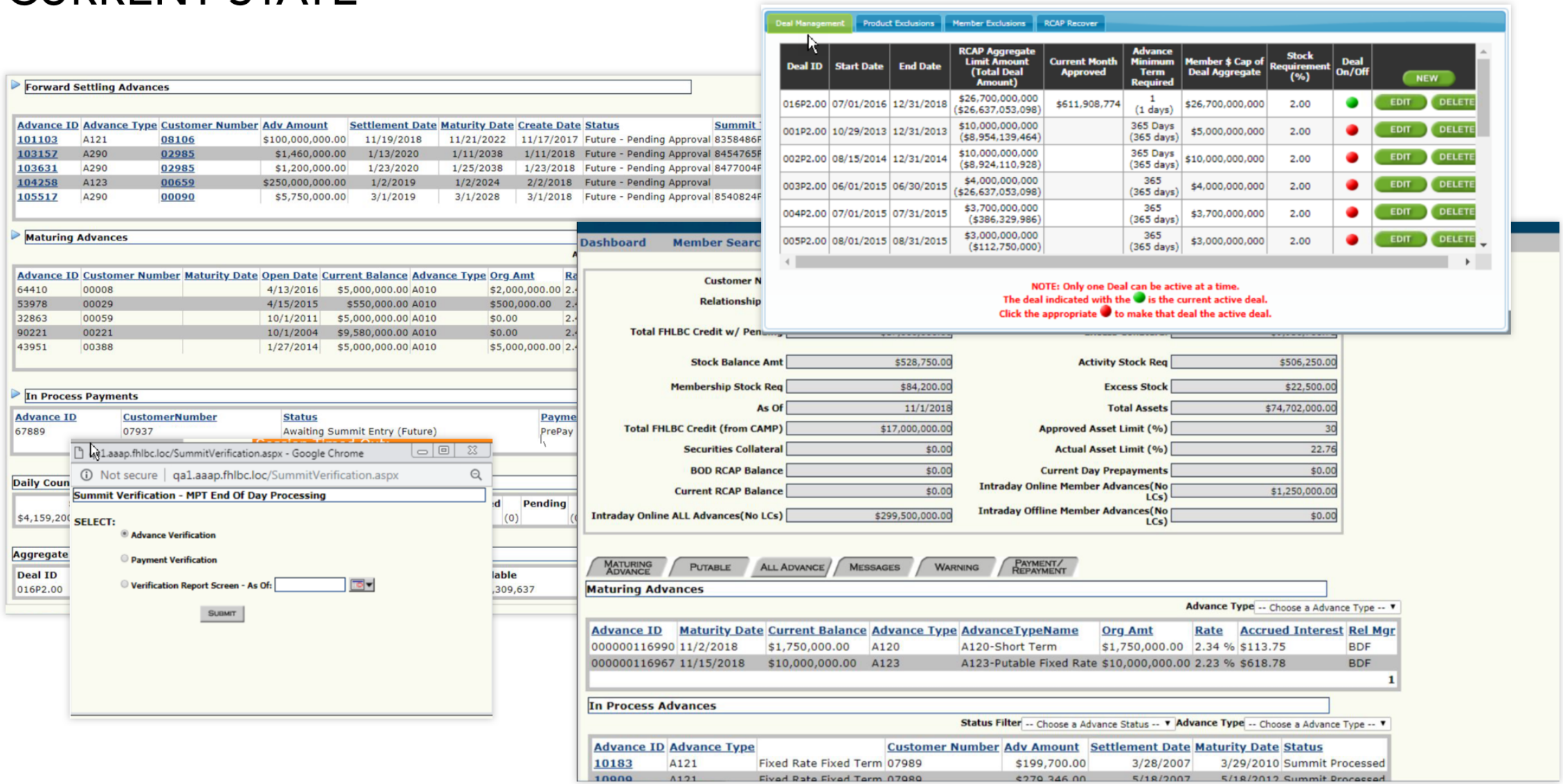
- Prototyping
- Animation
- Copywriting
- Iconography
- Redlining

Usability testing, iteration

Pattern library / design system

Handoff / transition plan

CURRENT STATE



CLIENT VISION

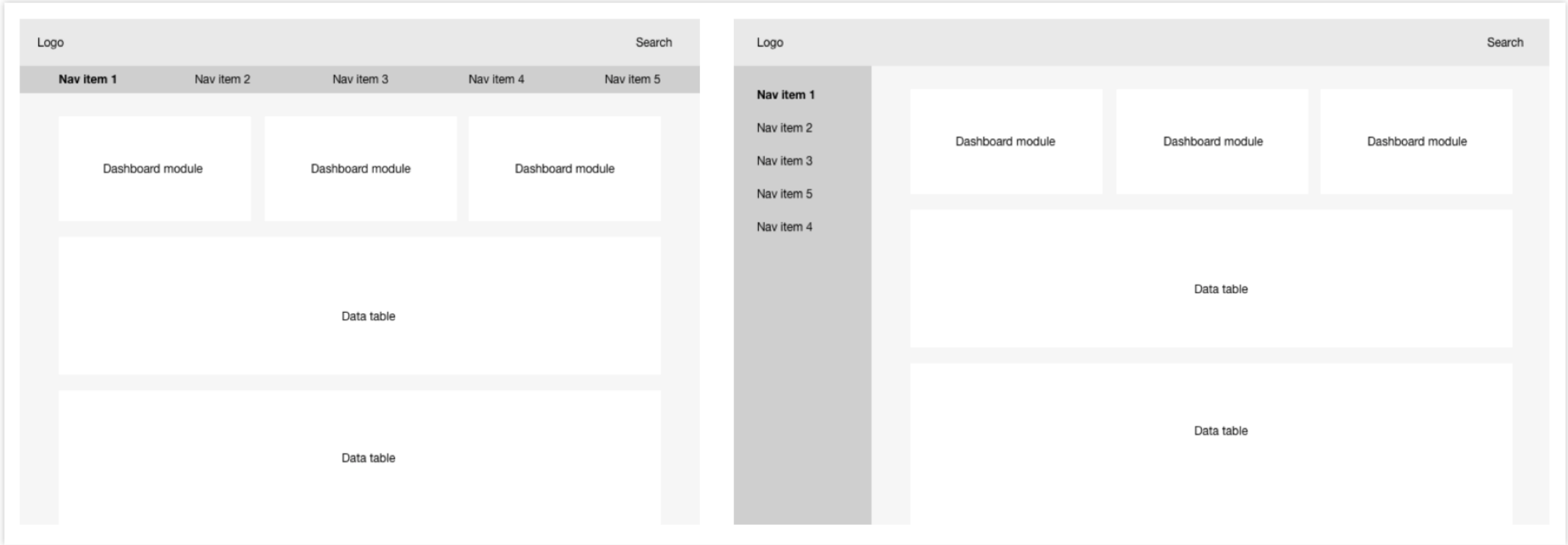
Processed Transactions	Pending Transactions	Maturing Transactions	Current Day Transactions	New Money
56	4	1,000,000,000	1,500,000,000	500,000,000

BEAN COUNTER

DealID	Aggregate	Utilized
016P2.00	$26,700,000,000	$25,000,000,000

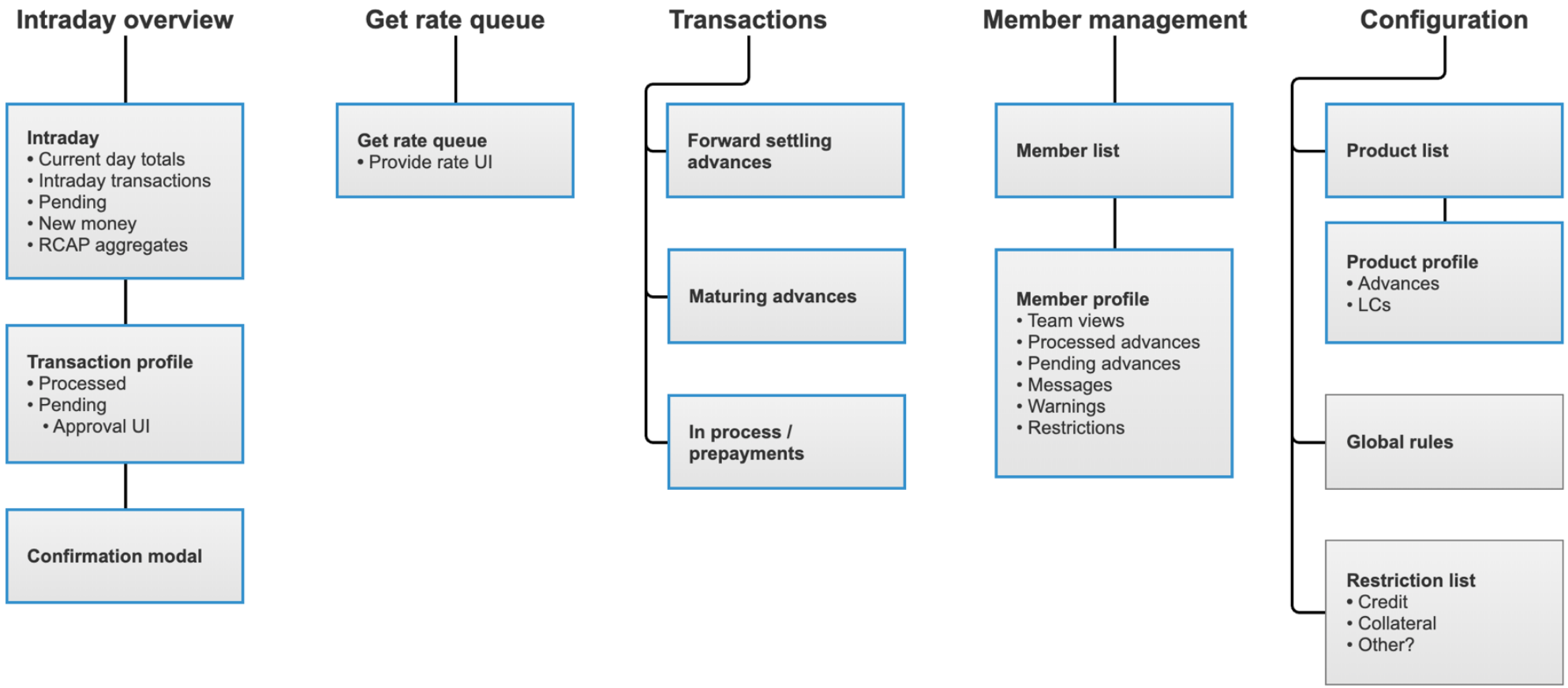
Time Elapsed	Business Unit	Member	AdvanceID	Advance Type	Amount	Term	Maturity Date	Rate	Status	Actions
01:10:08	TREASURY	00115	100001	A260	300,000,000	5Y	08/13/2023		RATE REQUIRED	Select Action
01:00:08	COLLATERAL	00298	100002	A120	200,000,000	5D	08/18/2018	2.00%	PENDING	Select Action
00:55:08	CREDIT	00513	100003	A121	150,000,000	55D	10/08/2018	3.00%	PENDING	Select Action
00:51:08	CI	00659	100004	A123	1,000,000	1Y	08/13/2019	3.25%	CICA # REQUIRED	Select Action
00:00:00	TREASURY	00733	100005	A260	1,000,000,000	5Y	08/13/2023	1.50%	PROCESSED	Select Action
00:00:00	COLLATERAL	01031	100006	A370	400,000,000	99D	11/20/2013	4.50%	PROCESSED	Select Action
00:00:00	CREDIT	01781	100007	A380	250,000,000	2Y	08/13/2020	2.00%	PROCESSED	Select Action
00:00:00	CI	03984	100008	cL20PFB	500,000,000	3Y	08/13/2021	4.50%	PROCESSED	Select Action

WIREFRAMING

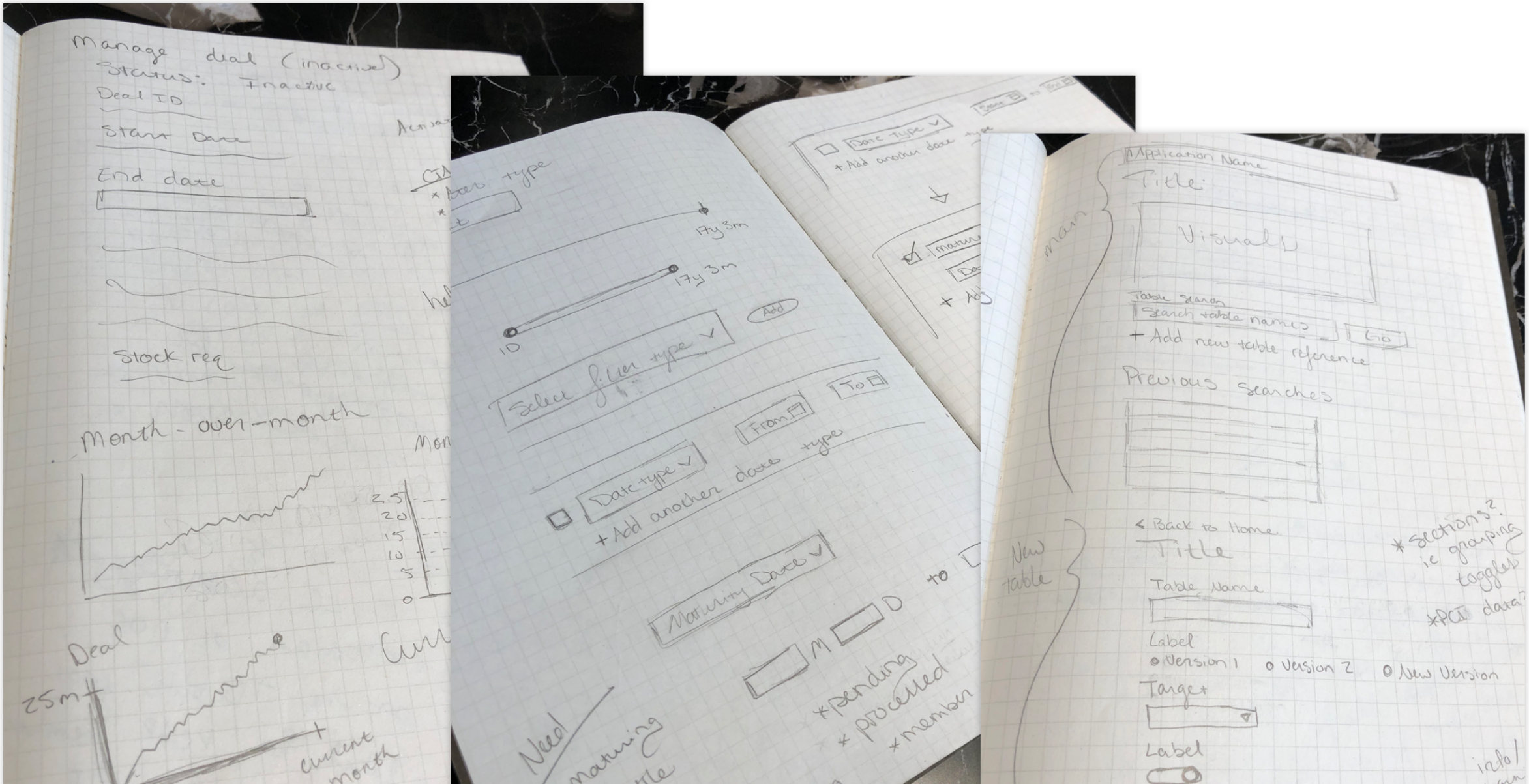


WIREFRAMING

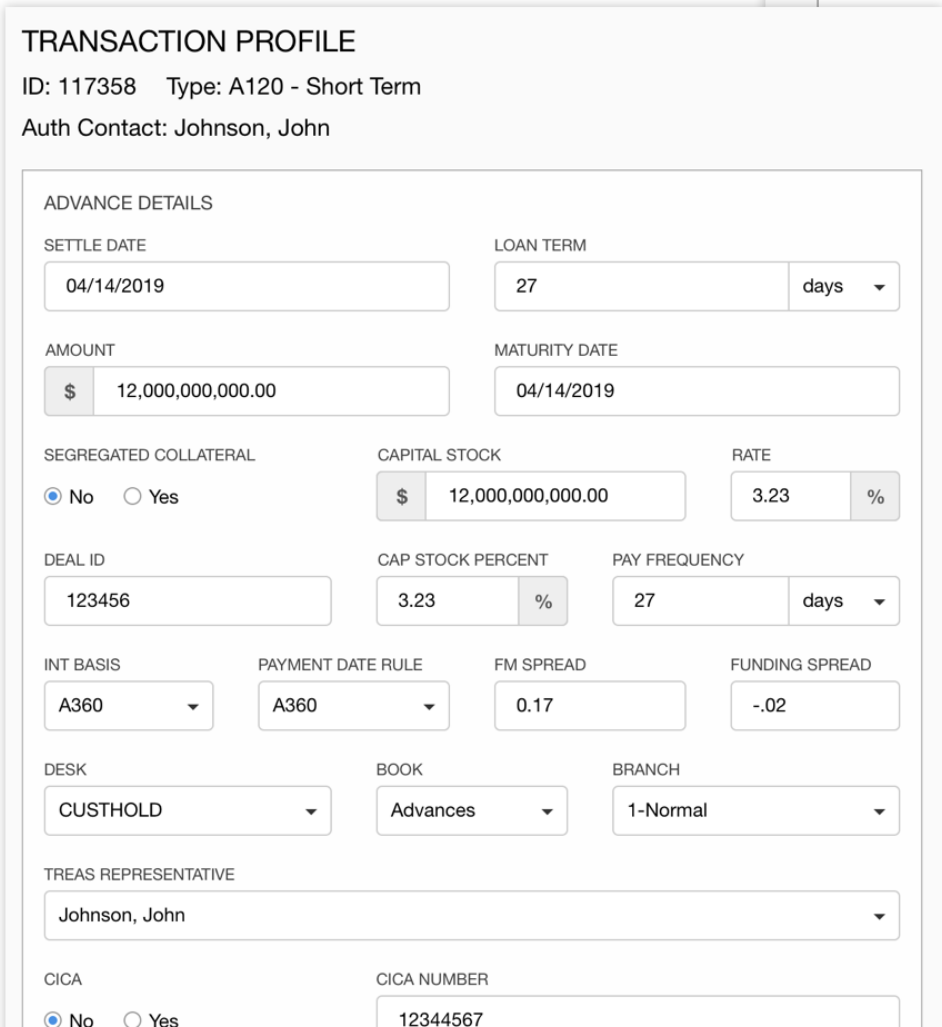
APPLICATION OVERVIEW

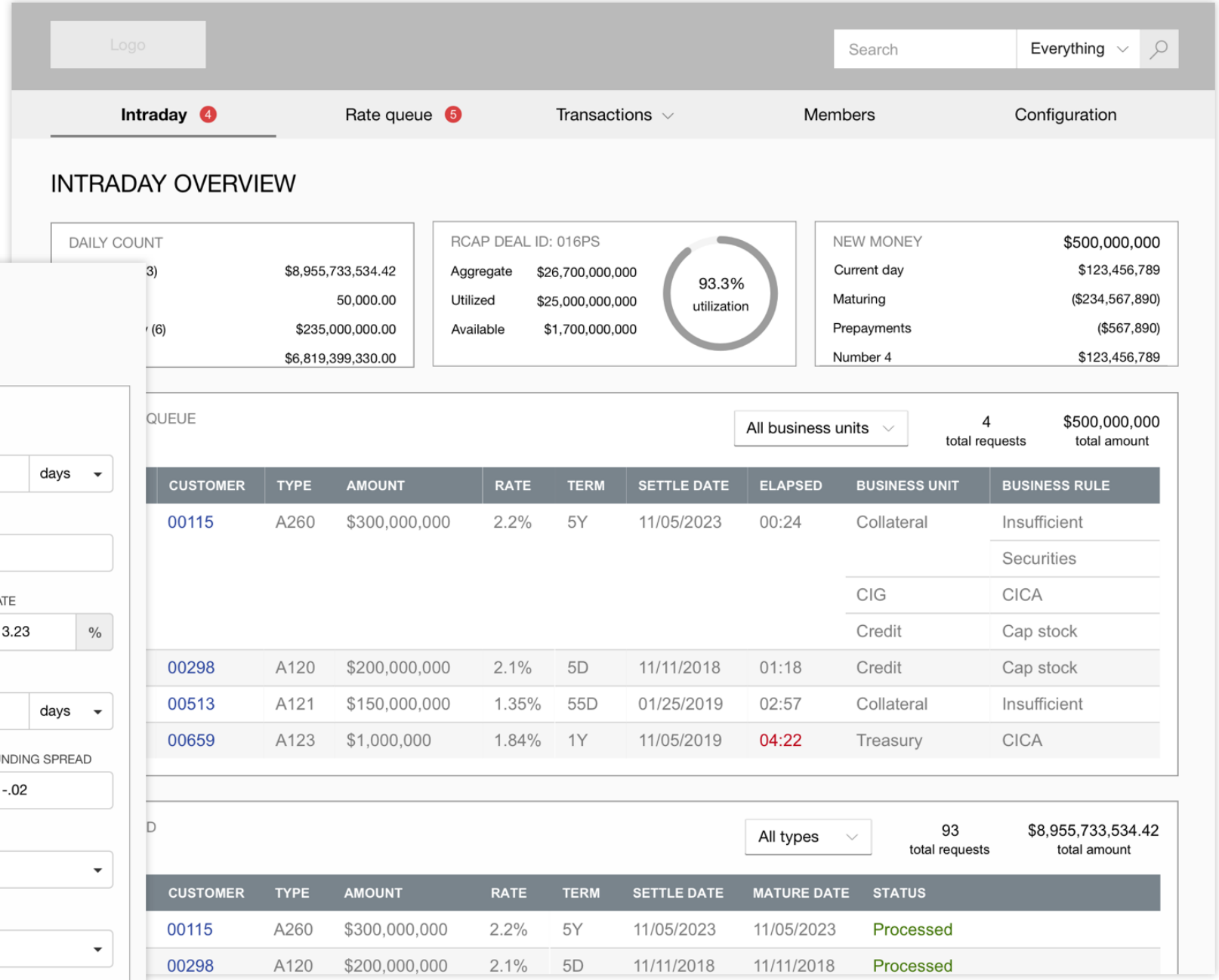


SKETCHING


Manage deal (inactive)
Status: Inactive
Deal ID
Start Date
End date
Stock req
Month - over-month
Deal
25m
current month
Select filter type
Add
From
To
Date type
+ Add another date type
Maturity Date
Need
maturing
*pending
*processed
*member
Application Name
Title
Visual
Table search
Search table names
Go
+ Add new table reference
Previous searches
main
New table
< Back to Home
Title
Table Name
Label
Version 1
Version 2
New Version
Target
Label
*sections? ie grouping toggles
*PCI data?

WIREFRAMING





WIREFRAMING

MEMBER INFORMATION

Customer name	American Bank
Customer number	123456
Risk rating	2
Relationship manager	ABC
Total collateral	$95,000,000.00
Total FHLBC Credit w/ Pending	$90,189,281.38
Excess collateral	$25,000,000.00
Stock balance amount	$3,506,470.84
Activity stock requirement	$2,000,000.00
Membership stock requirement	$171,000.00
Excess stock (as of 11/9/2018)	$0.00
Total assets	$450,000,000.00
Total FHLBC Credit (from CAMP)	$90,189,281.38
Approved asset limit	30%
Securities Collateral	$0.00
Actual asset limit	9.21%
BOD RCAP Balance	$21,687,630.79
Current day prepayments	$0.00
Current RCAP Balance	$13,000,000.00
Intraday Online ALL Advances	$501,410,000.00

TRANSACTION PROFILE (PENDING)

Transaction pending

ACTION REQUIRED — Time elapsed: 02:57

BUSINESS UNIT	BUSINESS RULE	ACTION
Collateral	Insufficient	
Treasury	CICA	

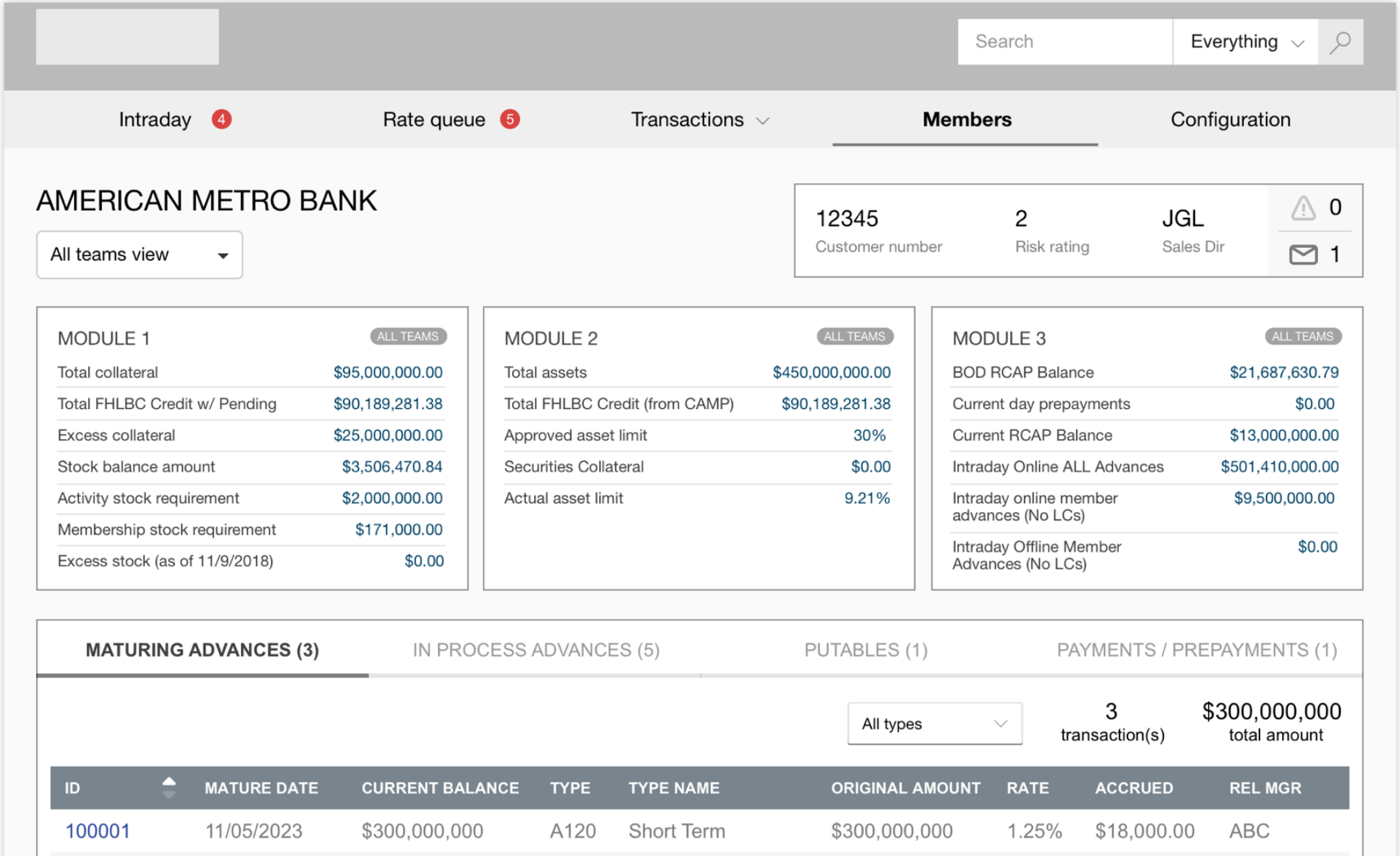
PROCESSED ADVANCES

Filter + search

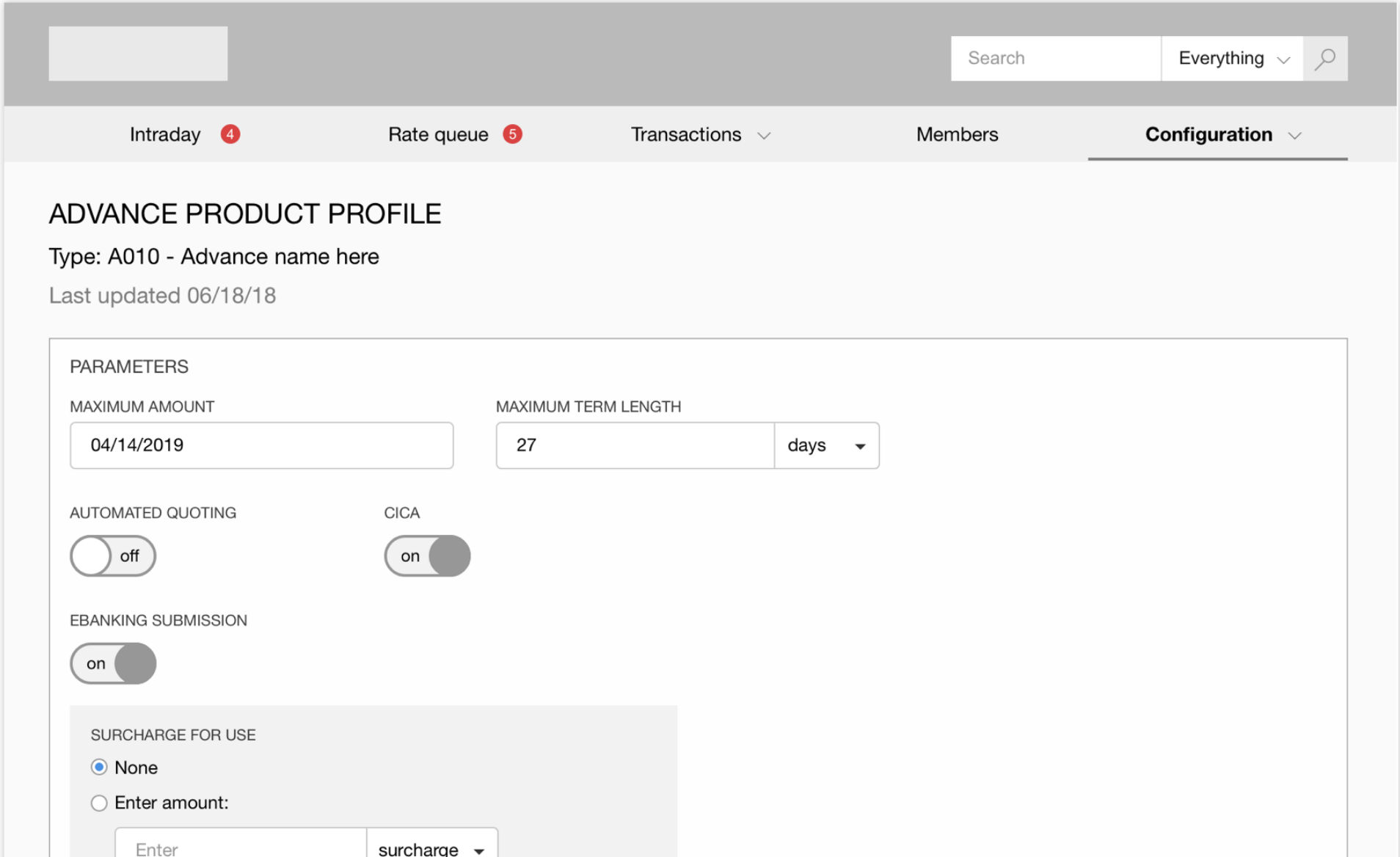
22 transactions

ID	TYPE	MEMBER	ADV AMOUNT	SETTLE DATE	MATURE DATE	CREATE DATE	STATUS	SUMMIT TRA...	CAPSTOCK T...
100001	A120	123456	$1,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	
100002	A120	123456	$1,000,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	
100003	A120	123456	$1,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	
100004	A120	123456	$1,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	
100001	A120	123456	$1,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	
100002	A120	123456	$1,000,000,000.00	11/05/2023	11/05/2023	11/05/2023	Future	1234567AB	

WIREFRAMING

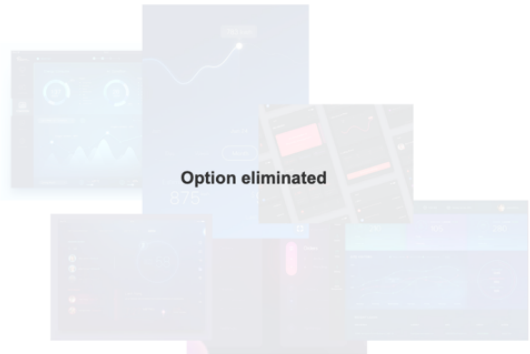


WIREFRAMING



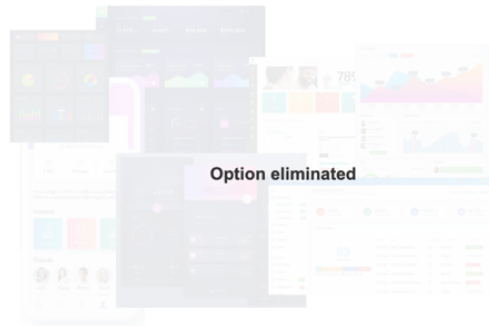
MOOD BOARDS

DYNAMIC / FUTURISTIC

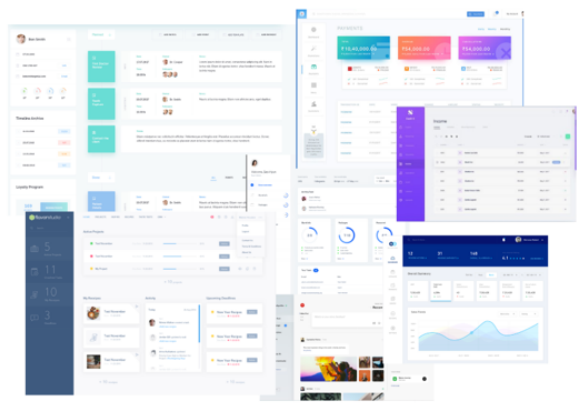


DARK / MONOCHROMATIC

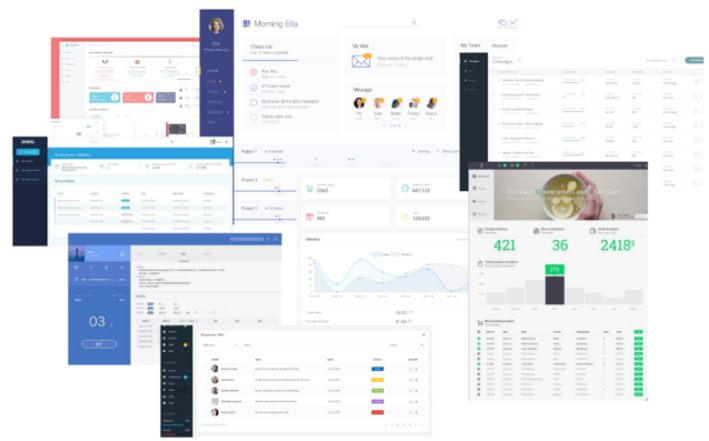
COLORFUL / PLAYFUL



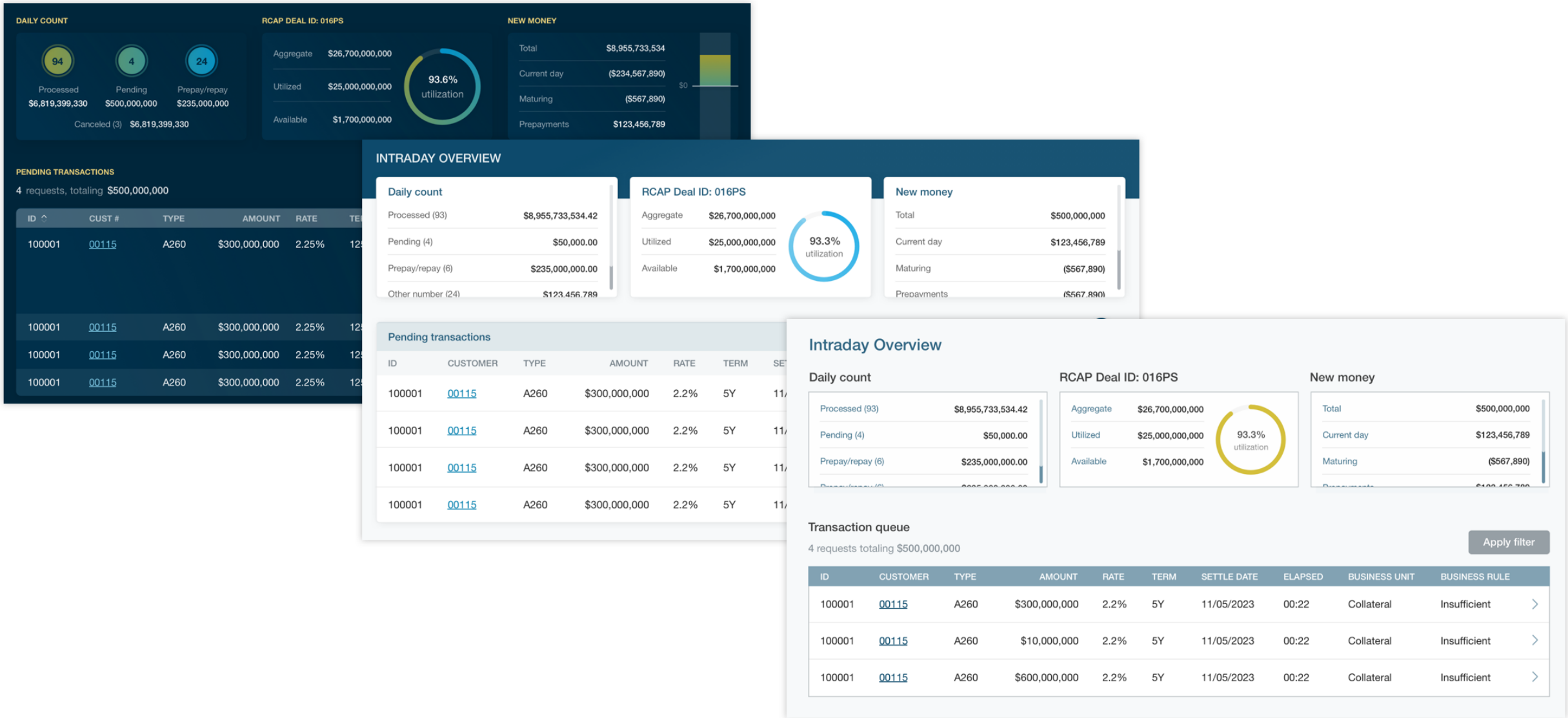
FLOATY / DEPTH



CLEAN / SHARP



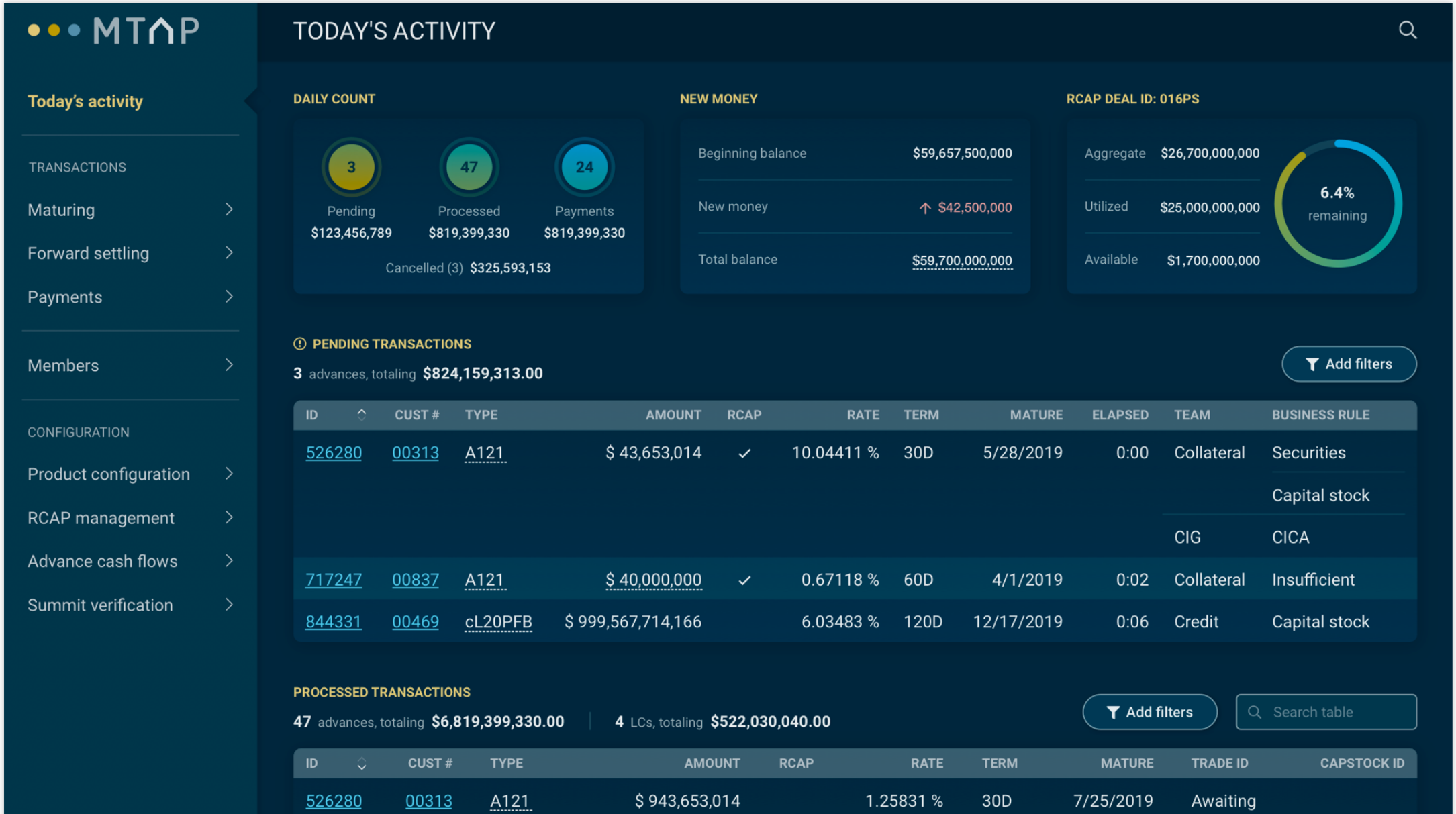
LOOK & FEEL OPTIONS



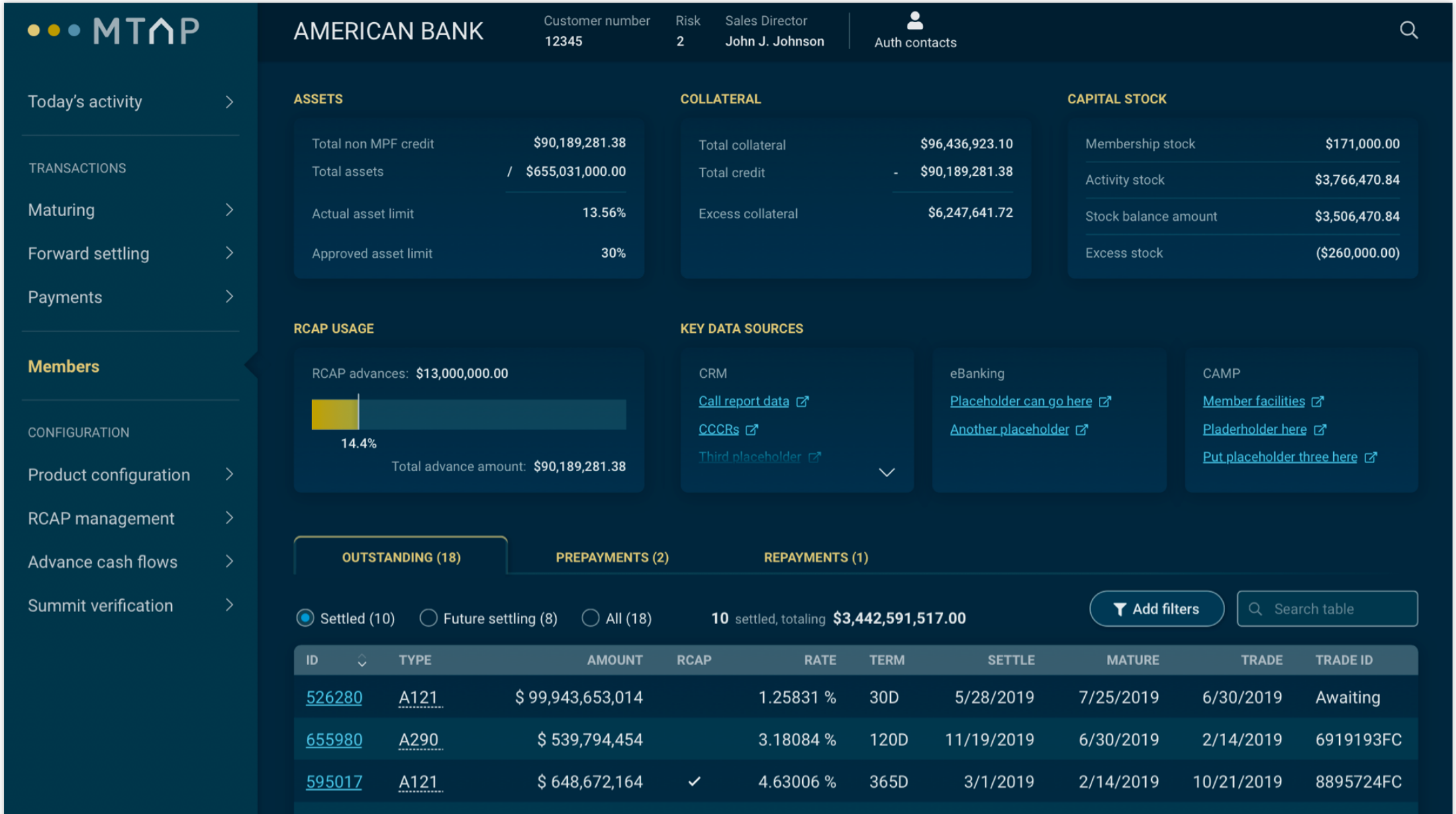
MOCKUPS

MTAP
TODAY'S ACTIVITY
Today's activity
Transactions
Members
Configuration
Maturing
Forward settling
Payments
Product list
Deal management
DAILY COUNT
NEW MONEY
PENDING TRANSACTIONS
PROCESSED TRANSACTIONS

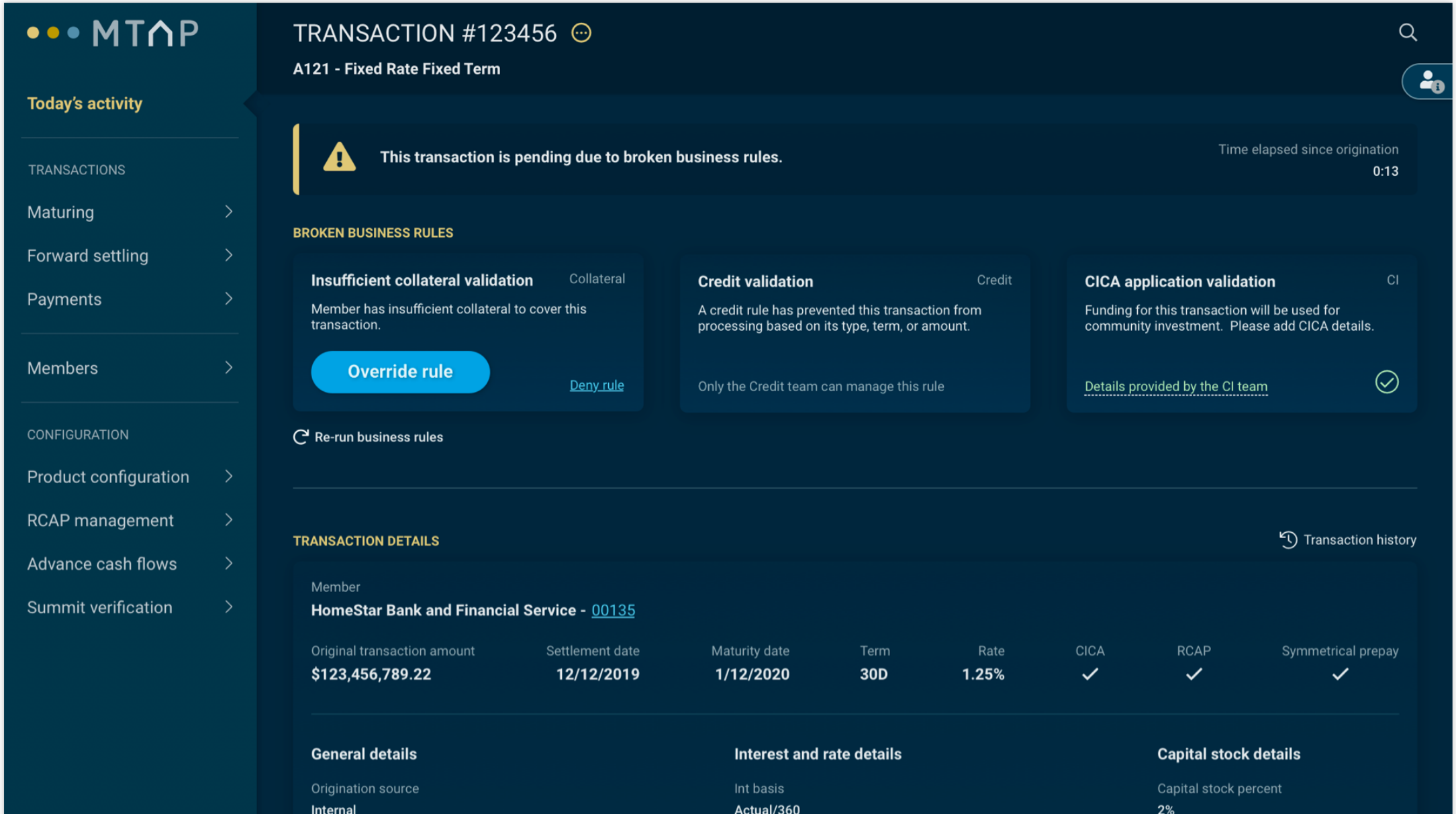
MOCKUPS


MTAP
TODAY'S ACTIVITY
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
DAILY COUNT
3
Pending
$123,456,789
47
Processed
$819,399,330
24
Payments
$819,399,330
Cancelled (3) $325,593,153
NEW MONEY
Beginning balance $59,657,500,000
New money ↑ $42,500,000
Total balance $59,700,000,000
RCAP DEAL ID: 016PS
Aggregate $26,700,000,000
Utilized $25,000,000,000
Available $1,700,000,000
6.4%
remaining
PENDING TRANSACTIONS
3 advances, totaling $824,159,313.00
Add filters
ID CUST # TYPE AMOUNT RCAP RATE TERM MATURE ELAPSED TEAM BUSINESS RULE
526280 00313 A121 $ 43,653,014 ✓ 10.04411 % 30D 5/28/2019 0:00 Collateral Securities
Capital stock
CIG CICA
717247 00837 A121 $ 40,000,000 ✓ 0.67118 % 60D 4/1/2019 0:02 Collateral Insufficient
844331 00469 cL20PFB $ 999,567,714,166 6.03483 % 120D 12/17/2019 0:06 Credit Capital stock
PROCESSED TRANSACTIONS
47 advances, totaling $6,819,399,330.00
4 LCs, totaling $522,030,040.00
Add filters
Search table
ID CUST # TYPE AMOUNT RCAP RATE TERM MATURE TRADE ID CAPSTOCK ID
526280 00313 A121 $ 943,653,014 1.25831 % 30D 7/25/2019 Awaiting

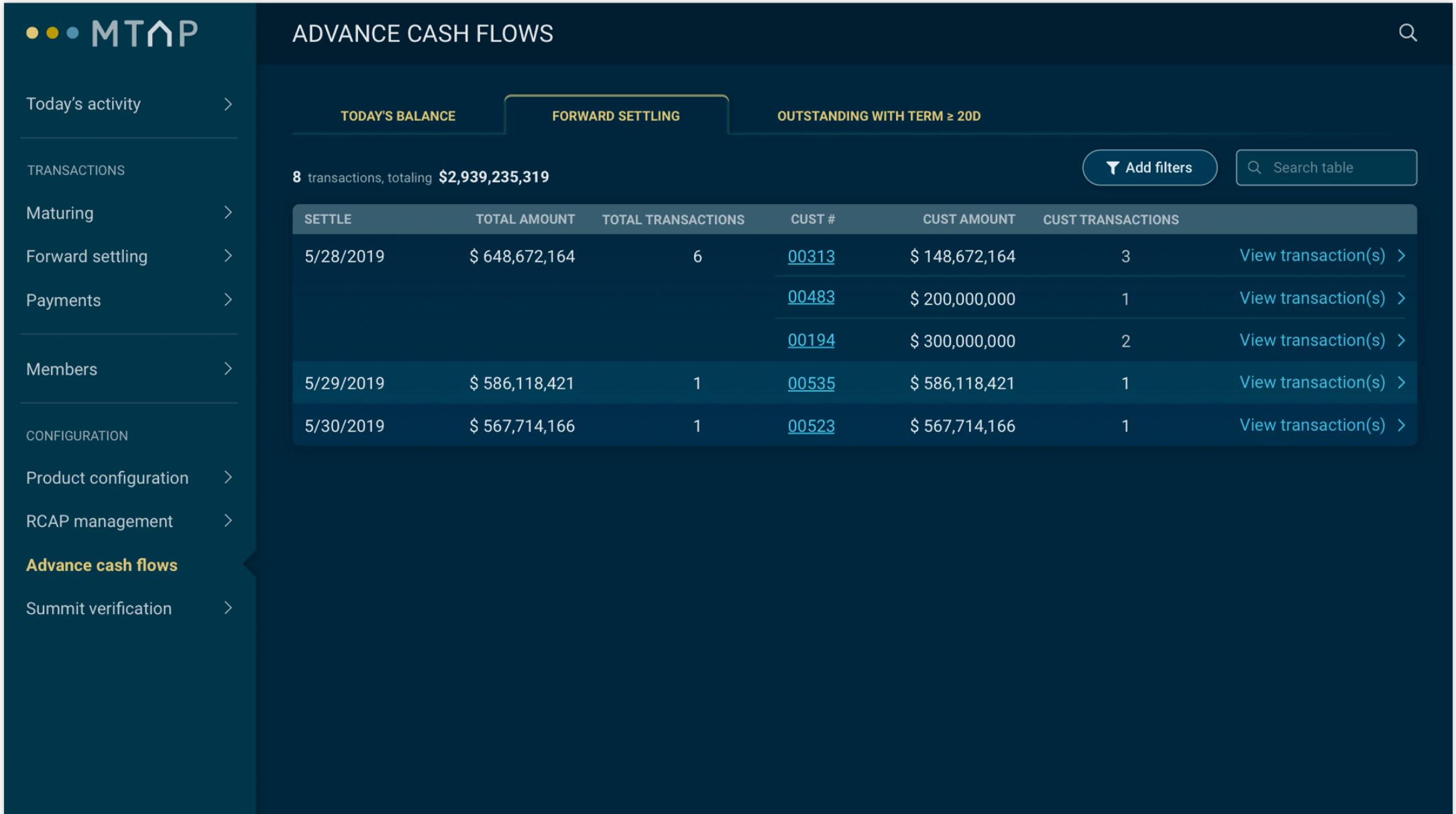
MOCKUPS


MTAP
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
AMERICAN BANK
Customer number
12345
Risk
2
Sales Director
John J. Johnson
Auth contacts
ASSETS
Total non MPF credit $90,189,281.38
Total assets / $655,031,000.00
Actual asset limit 13.56%
Approved asset limit 30%
COLLATERAL
Total collateral $96,436,923.10
Total credit - $90,189,281.38
Excess collateral $6,247,641.72
CAPITAL STOCK
Membership stock $171,000.00
Activity stock $3,766,470.84
Stock balance amount $3,506,470.84
Excess stock ($260,000.00)
RCAP USAGE
RCAP advances: $13,000,000.00
14.4%
Total advance amount: $90,189,281.38
KEY DATA SOURCES
CRM
Call report data
CCCRs
Third placeholder
eBanking
Placeholder can go here
Another placeholder
CAMP
Member facilities
Pladerholder here
Put placeholder three here
OUTSTANDING (18)
PREPAYMENTS (2)
REPAYMENTS (1)
Settled (10)
Future settling (8)
All (18)
10 settled, totaling $3,442,591,517.00
Add filters
Search table
ID
TYPE
AMOUNT
RCAP
RATE
TERM
SETTLE
MATURE
TRADE
TRADE ID
526280 A121 $ 99,943,653,014 1.25831 % 30D 5/28/2019 7/25/2019 6/30/2019 Awaiting
655980 A290 $ 539,794,454 3.18084 % 120D 11/19/2019 6/30/2019 2/14/2019 6919193FC
595017 A121 $ 648,672,164 ✓ 4.63006 % 365D 3/1/2019 2/14/2019 10/21/2019 8895724FC

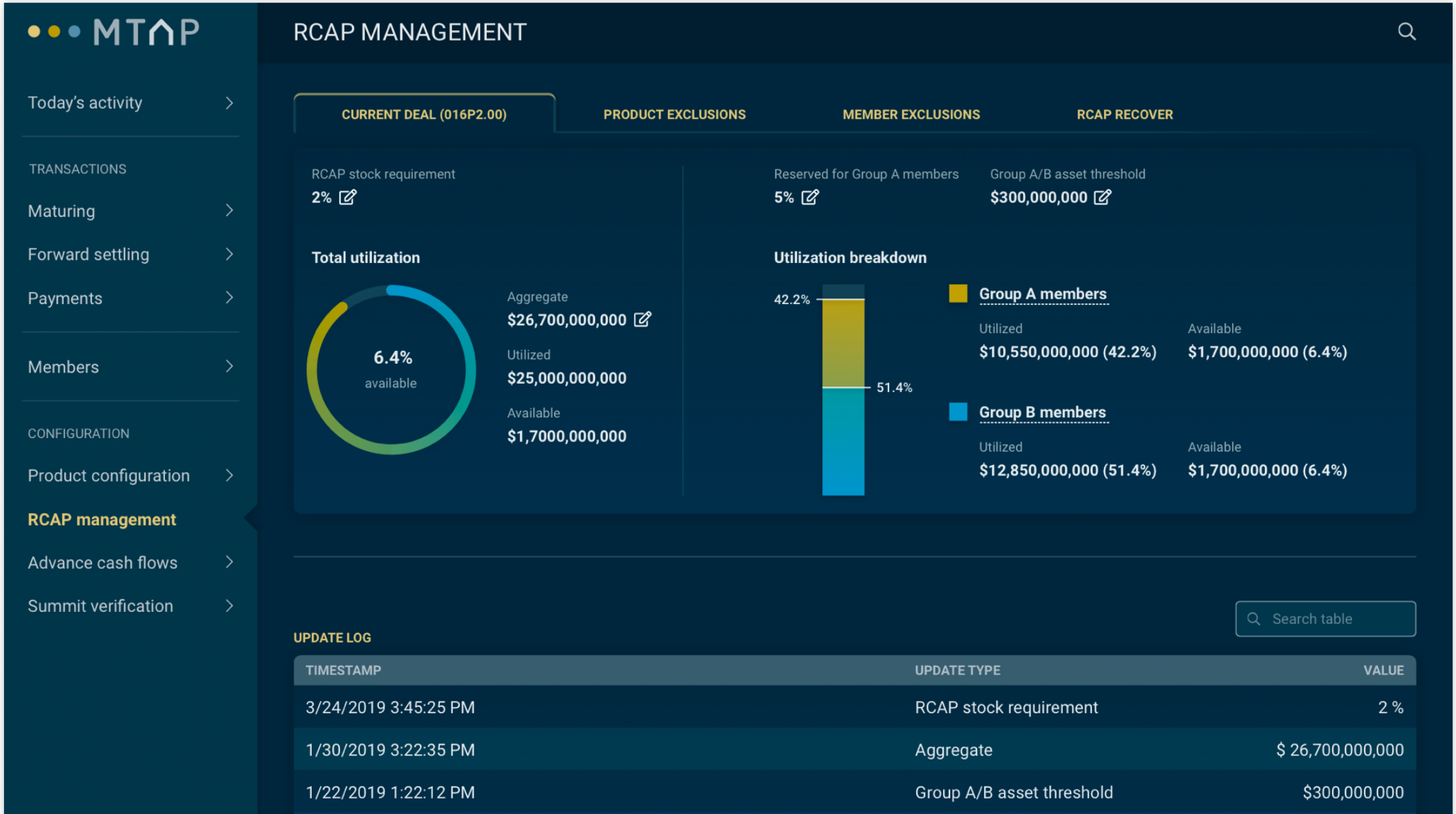
MOCKUPS


MTAP
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
TRANSACTION #123456
A121 - Fixed Rate Fixed Term
This transaction is pending due to broken business rules.
Time elapsed since origination
0:13
BROKEN BUSINESS RULES
Insufficient collateral validation
Collateral
Member has insufficient collateral to cover this transaction.
Override rule
Deny rule
Credit validation
Credit
A credit rule has prevented this transaction from processing based on its type, term, or amount.
Only the Credit team can manage this rule
CICA application validation
CI
Funding for this transaction will be used for community investment. Please add CICA details.
Details provided by the CI team
Re-run business rules
TRANSACTION DETAILS
Transaction history
Member
HomeStar Bank and Financial Service - 00135
Original transaction amount
$123,456,789.22
Settlement date
12/12/2019
Maturity date
1/12/2020
Term
30D
Rate
1.25%
CICA
RCAP
Symmetrical prepay
General details
Origination source
Internal
Interest and rate details
Int basis
Actual/360
Capital stock details
Capital stock percent
2%

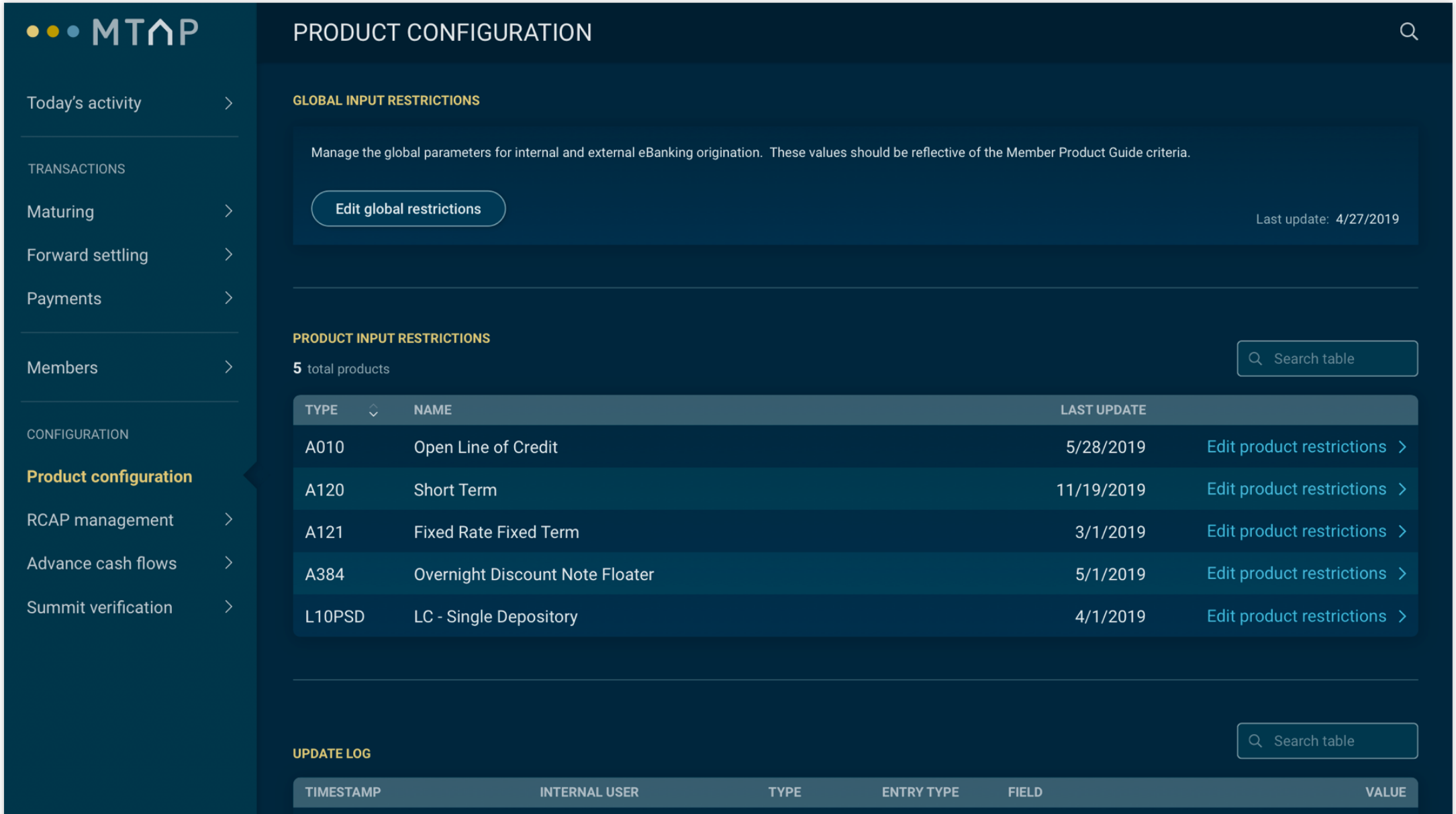
MOCKUPS


MTAP
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
ADVANCE CASH FLOWS
TODAY'S BALANCE
FORWARD SETTLING
OUTSTANDING WITH TERM ≥ 20D
8 transactions, totaling $2,939,235,319
Add filters
Search table
SETTLE
TOTAL AMOUNT
TOTAL TRANSACTIONS
CUST #
CUST AMOUNT
CUST TRANSACTIONS
5/28/2019
$ 648,672,164
6
00313
$ 148,672,164
3
View transaction(s)
00483
$ 200,000,000
1
View transaction(s)
00194
$ 300,000,000
2
View transaction(s)
5/29/2019
$ 586,118,421
1
00535
$ 586,118,421
1
View transaction(s)
5/30/2019
$ 567,714,166
1
00523
$ 567,714,166
1
View transaction(s)

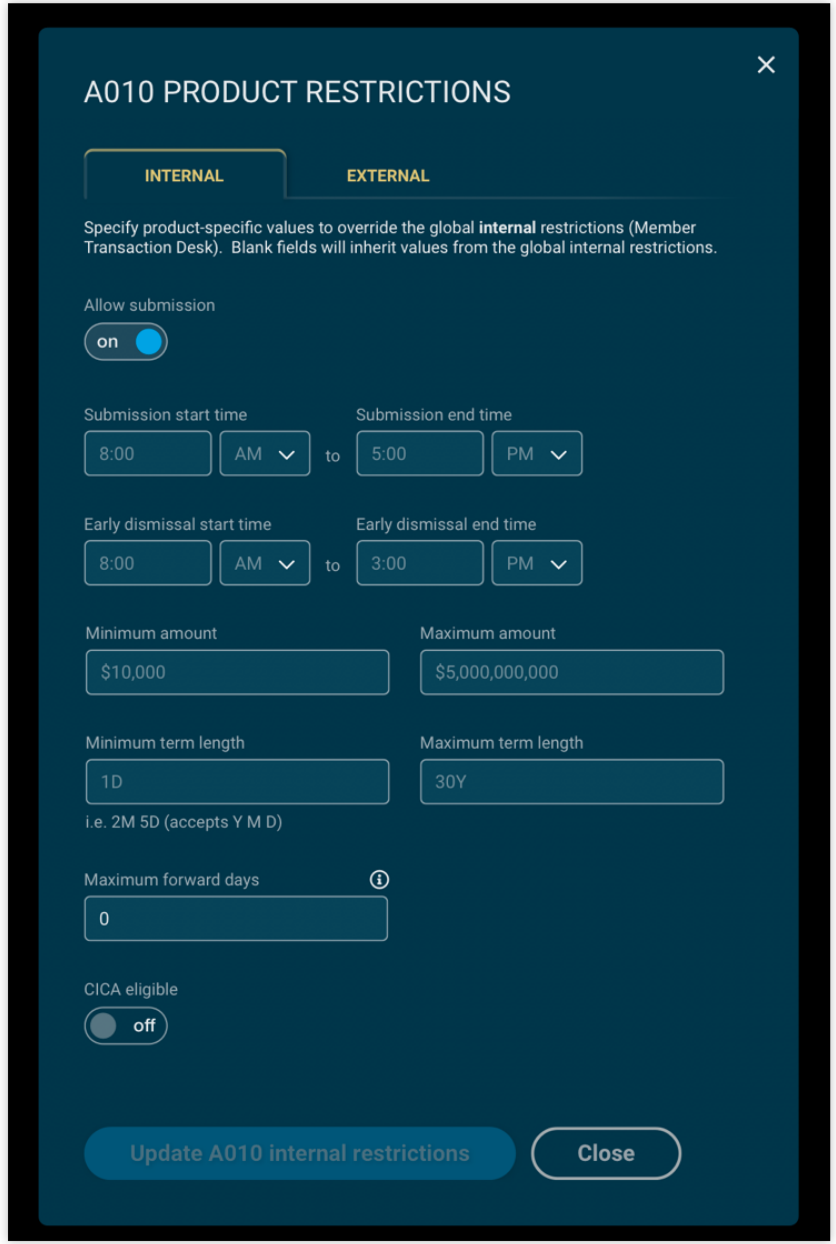
MOCKUPS

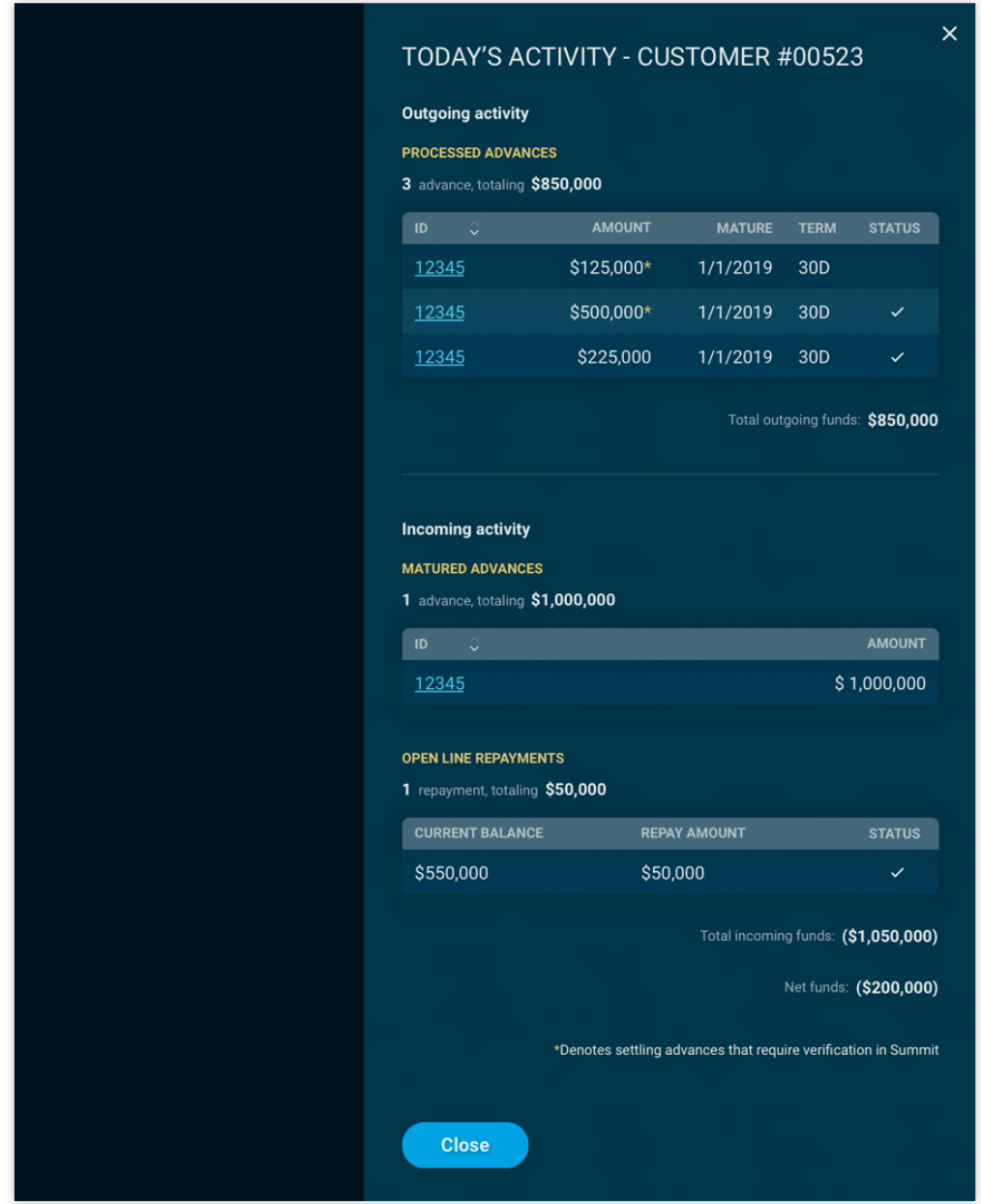

MTAP
RCAP MANAGEMENT
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
CURRENT DEAL (016P2.00)
PRODUCT EXCLUSIONS
MEMBER EXCLUSIONS
RCAP RECOVER
RCAP stock requirement
2%
Reserved for Group A members
5%
Group A/B asset threshold
$300,000,000
Total utilization
6.4%
available
Aggregate
$26,700,000,000
Utilized
$25,000,000,000
Available
$1,7000,000,000
Utilization breakdown
42.2%
51.4%
Group A members
Utilized
$10,550,000,000 (42.2%)
Available
$1,700,000,000 (6.4%)
Group B members
Utilized
$12,850,000,000 (51.4%)
Available
$1,700,000,000 (6.4%)
Search table
UPDATE LOG
TIMESTAMP
UPDATE TYPE
VALUE
3/24/2019 3:45:25 PM
RCAP stock requirement
2 %
1/30/2019 3:22:35 PM
Aggregate
$ 26,700,000,000
1/22/2019 1:22:12 PM
Group A/B asset threshold
$300,000,000

MOCKUPS

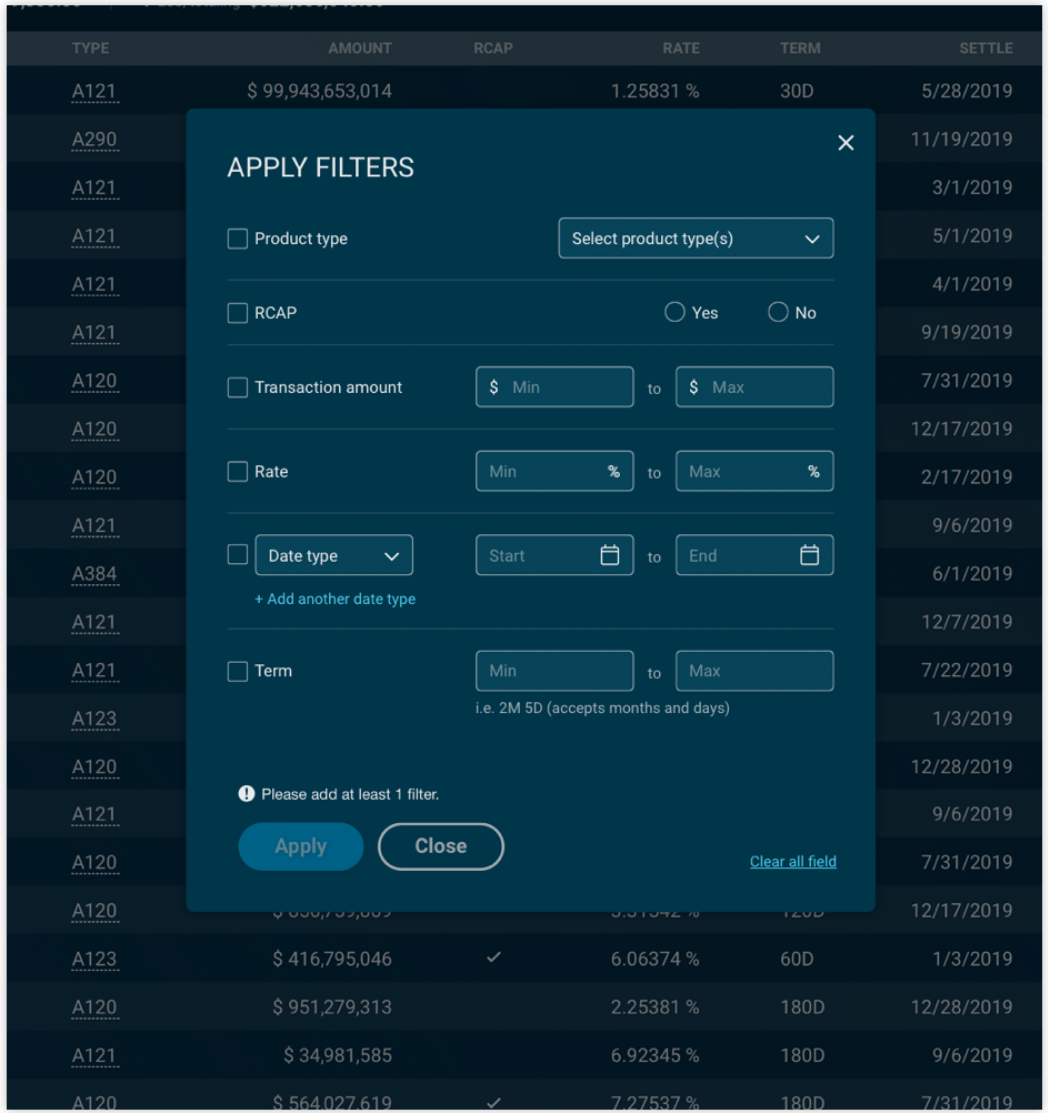

MTAP
Today's activity
TRANSACTIONS
Maturing
Forward settling
Payments
Members
CONFIGURATION
Product configuration
RCAP management
Advance cash flows
Summit verification
PRODUCT CONFIGURATION
GLOBAL INPUT RESTRICTIONS
Manage the global parameters for internal and external eBanking origination. These values should be reflective of the Member Product Guide criteria.
Edit global restrictions
Last update: 4/27/2019
PRODUCT INPUT RESTRICTIONS
5 total products
Search table
TYPE
NAME
LAST UPDATE
A010 Open Line of Credit 5/28/2019 Edit product restrictions
A120 Short Term 11/19/2019 Edit product restrictions
A121 Fixed Rate Fixed Term 3/1/2019 Edit product restrictions
A384 Overnight Discount Note Floater 5/1/2019 Edit product restrictions
L10PSD LC - Single Depository 4/1/2019 Edit product restrictions
UPDATE LOG
Search table
TIMESTAMP
INTERNAL USER
TYPE
ENTRY TYPE
FIELD
VALUE

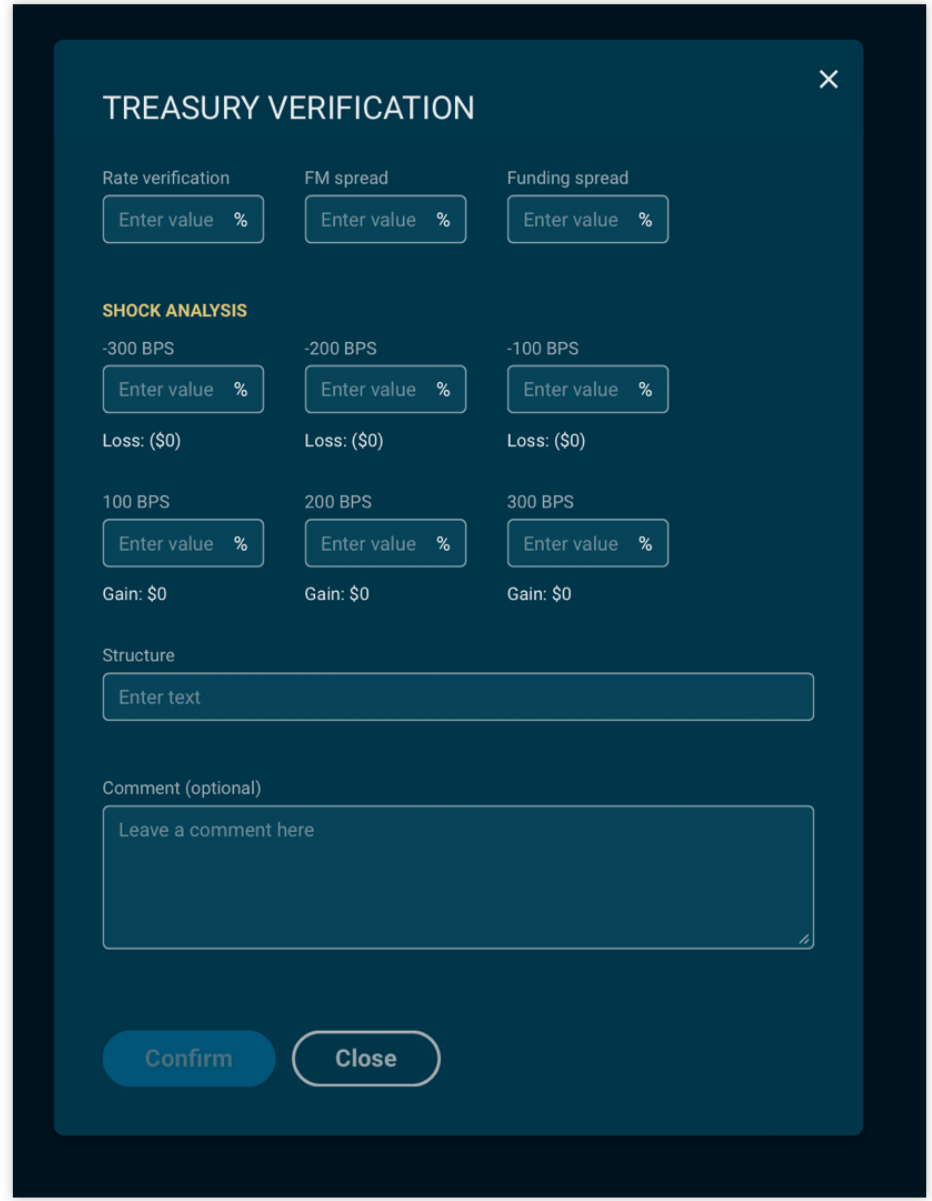
MOCKUPS


A010 PRODUCT RESTRICTIONS
INTERNAL
EXTERNAL
Specify product-specific values to override the global internal restrictions (Member Transaction Desk). Blank fields will inherit values from the global internal restrictions.
Allow submission
on
Submission start time
8:00
AM
to
Submission end time
5:00
PM
Early dismissal start time
8:00
AM
to
Early dismissal end time
3:00
PM
Minimum amount
$10,000
Maximum amount
$5,000,000,000
Minimum term length
1D
Maximum term length
30Y
i.e. 2M 5D (accepts Y M D)
Maximum forward days
0
CICA eligible
off
Update A010 internal restrictions
Close

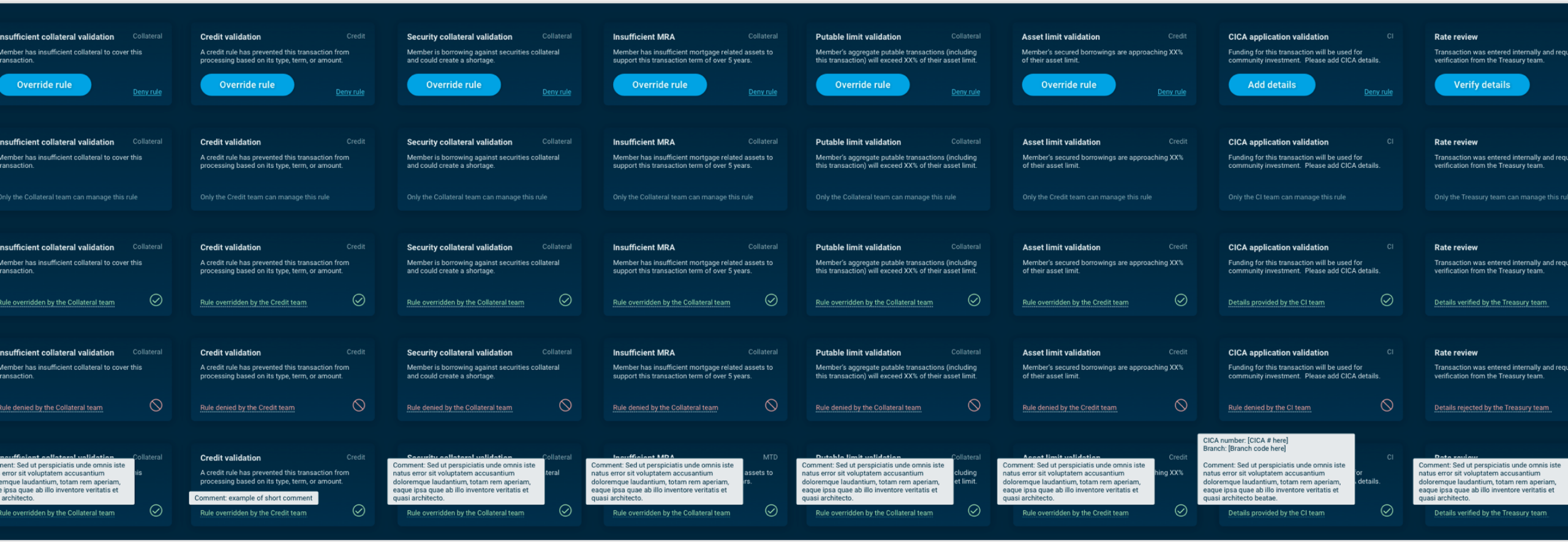

TODAY'S ACTIVITY - CUSTOMER #00523
Outgoing activity
PROCESSED ADVANCES
3 advance, totaling $850,000
ID
AMOUNT
MATURE
TERM
STATUS
12345
$125,000*
1/1/2019
30D
12345
$500,000*
1/1/2019
30D
12345
$225,000
1/1/2019
30D
Total outgoing funds: $850,000
Incoming activity
MATURED ADVANCES
1 advance, totaling $1,000,000
ID
AMOUNT
12345
$ 1,000,000
OPEN LINE REPAYMENTS
1 repayment, totaling $50,000
CURRENT BALANCE
REPAY AMOUNT
STATUS
$550,000
$50,000
Total incoming funds: ($1,050,000)
Net funds: ($200,000)
*Denotes settling advances that require verification in Summit
Close

MOCKUPS

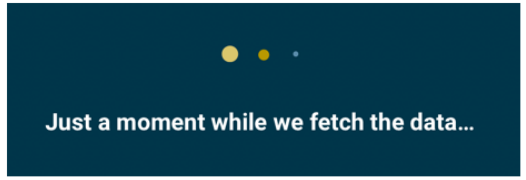

TYPE
AMOUNT
RCAP
RATE
TERM
SETTLE
A121 $ 99,943,653,014 1.25831 % 30D 5/28/2019
A290 11/19/2019
A121 3/1/2019
A121 5/1/2019
A121 4/1/2019
A121 9/19/2019
A120 7/31/2019
A120 12/17/2019
A120 2/17/2019
A121 9/6/2019
A384 6/1/2019
A121 12/7/2019
A121 7/22/2019
A123 1/3/2019
A120 12/28/2019
A121 9/6/2019
A120 7/31/2019
A120 12/17/2019
A123 $ 416,795,046 6.06374 % 60D 1/3/2019
A120 $ 951,279,313 2.25381 % 180D 12/28/2019
A121 $ 34,981,585 6.92345 % 180D 9/6/2019
A120 $ 564,027,619 7.27537 % 180D 7/31/2019
APPLY FILTERS
Product type
Select product type(s)
RCAP
Yes
No
Transaction amount
$ Min
to
$ Max
Rate
Min %
to
Max %
Date type
Start
to
End
+ Add another date type
Term
Min
to
Max
i.e. 2M 5D (accepts months and days)
Please add at least 1 filter.
Apply
Close
Clear all field


TREASURY VERIFICATION
Rate verification
Enter value %
FM spread
Enter value %
Funding spread
Enter value %
SHOCK ANALYSIS
-300 BPS
Enter value %
Loss: ($0)
-200 BPS
Enter value %
Loss: ($0)
-100 BPS
Enter value %
Loss: ($0)
100 BPS
Enter value %
Gain: $0
200 BPS
Enter value %
Gain: $0
300 BPS
Enter value %
Gain: $0
Structure
Enter text
Comment (optional)
Leave a comment here
Confirm
Close

MOCKUPS


Credit validation
Credit
A credit rule has prevented this transaction from processing based on its type, term, or amount.
Override rule
Deny rule
Only the Credit team can manage this rule
Rule overridden by the Credit team
Rule denied by the Credit team
Comment: example of short comment
Security collateral validation
Collateral
Member is borrowing against securities collateral and could create a shortage.
Only the Collateral team can manage this rule
Rule overridden by the Collateral team
Rule denied by the Collateral team
Comment: Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto.
Insufficient MRA
Member has insufficient mortgage related assets to support this transaction term of over 5 years.
Putable limit validation
Member's aggregate putable transactions (including this transaction) will exceed XX% of their asset limit.
Asset limit validation
Member's secured borrowings are approaching XX% of their asset limit.
CICA application validation
CI
Funding for this transaction will be used for community investment. Please add CICA details.
Add details
Only the CI team can manage this rule
Details provided by the CI team
CICA number: [CICA # here]
Branch: [Branch code here]
Comment: Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae.
Rate review
Transaction was entered internally and requ
verification from the Treasury team.
Verify details
Only the Treasury team can manage this ru
Details verified by the Treasury team
Details rejected by the Treasury team

PATTERN LIBRARY



FORMS

Text field

Form label
Empty input field

Form label
Filled input field

Form label
$ Filled input field

Form label
Filled input field %

Form label
Input error

Dropdown - single select

Form label
Choose an option

Form label
Choose an option

Dropdown option lorem ipsum dolor sit 1
Dropdown option 2
Dropdown option 3
Dropdown option 4
Dropdown option 5 hover
Dropdown option 6
Dropdown option 7
Dropdown option 8

Form label
Dropdown option 8

Dropdown - multi select

Form label
Choose an option

Form label
Choose an option

Long-form text field

Form label
Empty long-form

Form label
Filled long-form

Radio selection (3+ options)

Form label
Option 1
Option 2

Radio selection alt (2 options only)

Form label
Option 1 Option 2

Text field with dependent dropdown (3+ dropdown options)

Form label
Empty input field Dropdown item

Form label
Filled input field Dropdown item

Form label
Filled input field Dropdown item

Dropdown option 1
Dropdown option 2
Dropdown option 3
Dropdown option 4
Dropdown option 5
Dropdown option 6
Dropdown option 7
Dropdown option 8

Dependency container

Form label
Option 1

Description of depencies can go here (optional).
Form label
Empty input field
Form label
Empty input field

Unselected option
Unselected option

Date picker field

Date field

March 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Date picker - interactions

Date field

March 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23

Toggle

Toggle label off
Toggle label on

Refer to Axure for interactions / transitions

Checkboxes

Checkbox label
Unselected option
Selected option

TYPOGRAPHY

H1
H2

Navigation Navigation - hover
Navigation - active
Navigation - dropdown active
Alert

Body Text highlight
Label
Tooltip
Data point
Key data point Key data point
Link Link - hover
Global error

Table data
Table link Table link - hover
COLUMN LABEL
Table alert

Form - empty Form - filled
Form - inline error

Primary button
Secondary button
Secondary hover
Tertiary button

CALLS TO ACTION

Buttons - primary

Default	Hover	Pressed (+2y)	Disabled
Primary action	Primary action	Primary action	Pri

Buttons - secondary

Default	Hover	Pressed (+2y)
Secondary action	Secondary action	Secondary action

Buttons - tertiary

Default	Hover	Pressed (+2y)	Disabled
Tertiary action	Tertiary action	Tertiary action	Tertiary action

Buttons - with icons (Font Awesome)

Primary action Secondary action Tertiary action

Text + icon CTAs

Default	Hover	Pressed (-10% size)
Re-run business rules	Re-run business rules	Re-run business rules
Auth users	Auth users	Auth users
View all payments >	View all payments >	

Button scenario: page
Primary action will be accompanied by a secondary "Cancel button"
Primary action Cancel

Button scenario: modal / panel
Primary action will be accompanied by a secondary "Close button"
Primary action Close