Release Notes
Oracle Financial Services Lending and Leasing
Release 14.6.0.0.0
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Part No. F12052-01

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1. Release Notes

1.1 Background / Environment

Oracle Financial Services Software Limited has developed Oracle Financial Services Lending and Leasing solution. The suite is a comprehensive, end-to-end solution that supports full lifecycle of direct and indirect consumer lending business with Origination, Servicing and Collections modules. This enables financial institutions to make faster lending decisions, provide better customer service and minimize delinquency rates through a single integrated platform. It addresses each of the lending processes from design through execution. Its robust architecture and use of leading-edge industry standard products ensure almost limitless scalability.

1.2 Purpose

The purpose of this Release notes is to highlight the enhancements and bug fixes included in the Oracle Financial Services Lending and Leasing Release.

1.3 Abbreviations

Abbreviation	Detailed Description
OFSLL	Oracle Financial Services Lending and Leasing
XML	Extensible Mark-up Language
XSD	XML Schema Definition
GL	General Ledger
XLF	Extended Log Format
JSF	Java Server Faces
EAR	Enterprise Application Archive
UI	User Interface
WSDL	Web Services Description Language
ACH	Automated Clearing House
MDB	Message Driven Bean
JMS	Java Messaging Service
IoT	Internet of Things

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1.4   Product Summary

Oracle Financial Services Lending and Leasing Release is built to meet various challenges faced by financial institutions. It addresses each of the lending processes from design through execution. Its unique value lies in its ability to provide the business with predefined processes and a world-class framework that takes care of business risk and compliance needs.

1.5   Release Highlights

The key highlight of this patch release is to fix the critical bugs and to enhance the industry specific requirements.

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Enhancement	Description
Usage based Leasing	In Usage Based Leasing, customers can be billed only for the **exact usage** of the leased equipment and is the best-followed business practice for leasing industry. With this enhancement, OFSLL addresses this important requirement of leasing industry for most of business models. • Usage received is allocated for Base and Excess units based on Contract. • Usage can be sent in actual or incremental basis and in multiple tranches for a billing cycle. • Base and Excess Units are charged based on Charge Matrix, either on tiered and non-tiered charge model and posted as Usage Fee for each usage cycle as agreed in the Contract. • OFSLL also supports the option to charge customer with Excess Usage Fee at the time of Termination/Payoff Quote. Even during lease termination, system refers to the rates defined to charge excess usage based on excess usage slabs and rental matrix.
Renting based Leasing	Typically, short-term leases are termed as Rentals less than 6 months. This enhancement allows lessor to address specific cases of handling the 'Rental Based Agreements' and is mainly useful for Equipment leasing industry. This functionality helps to charge the customer with fixed rentals and Usage-based Rentals with quick funding option for existing customers. There is also a web service to create Rental contracts and single step process to create and fund Rental for Existing Customer.
Ever Green Lease	Ever Green Lease is a typical leasing product offered by the equipment leasing companies where-in the lessee can continue to use the equipment post the expiry of existing contract and without getting into new contract. Here rental payment amount can either be same as existing or discounted from the existing rental payment amount. This feature enables OFSLL to support another important business requirement of equipment leasing industry.
Lease Module changes	Following enhancements are taken up in Lease module: • Quick Calculator in Request, Decision and Contract tabs -This feature helps with on-screen options to Calculate Payment, Residual Percentage and Gross Capitalized Cost instead of going to Tools Calculator. • Usability Enhancement: Field label changes and field additions are done in Super Summary screen.
Lease Metro-II Impact	Regulatory requirement for the Lease module are included.
SCRA for Lease - Terminate lease with Customer Consent	Regulatory: Non-Monetary transaction has been introduced to capture 'Customer request of Termination' during SCRA.

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Enhancement	Description
Lease Extension before Maturity	In equipment leasing, lessees would like to avoid the burden of new contracting whenever a lease contract is getting expired and leased asset is required for a longer duration than it is currently contracted.
	In such cases, anytime extension would help lessees to act in advance depending up on the business forecast / market conditions and extend the contract. This also ensures continuous business for the lessor.
	With this feature, OFSLL allows lessees to extend an existing leasing contract to the required duration in advance before maturity.
Lease Change Term	This enhancement allows users to change the lease term and arrive at a new maturity date during the contract term. This feature is supported only for Interest Rate leases and posting this transaction can either increase of decrease the lease term.
	The Customer Service and Scenario Analysis screens are also modified to accommodate the change of lease term.
Depreciation	This feature helps lessor to manage asset depreciation when linked to a Lease Account. In addition, system allows user to set up depreciation parameters for a leased asset.
	• User can define whether the asset need to be depreciated or not at the contract level and also select from different depreciation methods like either life based (similar to straight line method) or flat rate (similar to written down method).
	• Depreciation values can be arrived depending on the frequency and depreciation transactions are posted accordingly.
	• System also supports amortized depreciation values to be handed over to external systems like external GLs.
Compute Insurance Rebate based on Mileage	To provide the true business benefit of rebate during insurance cancellation, the rebate calculation logic is enhanced in OFSLL.
	New calculation method is introduced so that while cancelling the insurance or while posting the payoff quote, the computation is based on the actual vehicle usage. System considers the minimum of actual insurance rebate or rebate calculated using the Mileage.
Metro-II Changes	Performance enhancements and new regulatory changes are implemented for Metro II reporting.
Conversion process Enhancement & Conversion Accounts UI changes	Conversion process is enhanced to support the on-boarding of the Lease Accounts with Usage, Renting and Usage Rentals.
	Usability Enhancements are done in Conversion Account UI.
Securitization Enhancement	OFSLL Securitization feature is enhanced with below changes:
	• Remove Account from Pool before pool finalization.
	• Usability enhancement to allow users to Copy existing Securitization pool with just a click.
	• Usability Enhancement to show Super Pool Details and Pool details at the Account level.

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Enhancement	Description
Payment Maintenance Search	New Payment Maintenance Search option is enhanced to allow users to search for payment records with various configurable parameters either based on Account or Payment.
Accounting Enhancements Imputed	If a financial institution provides loan to their customers with an interest rate which is significantly below the fair market interest rate published by regulator, it is necessary to record the transaction using an interest rate that closely accords with the fair market interest rate. This is the discounting revenue earned at the time of sale and recorded as 'imputed' interest over the life of the customer's loan. OFSLL is enhanced to support calculating and generating Imputed Interest Amortization Schedule for Imputed interest Loans.
Customer based Payments	OFSLL is enhanced to support Customer based payments in which user can make a single payment to multiple accounts linked to a particular customer. Just by selecting the customer number, all the linked Accounts are fetched and payment can be posted. This otherwise needed to be manually by posting each payment to each customer account. System also supports the following: • Defining customer Payment Hierarchy definition (Total Due, Rate, Total , Outstanding Amount, Activation Date, Delinquency Days) • Default Spread at customer level • File upload for the Customer based payment • Web service to receive Payment at customer level
Web Service changes	Following web services are introduced as part of the release: • Usage and Rental Service • Collateral Usage History • Advance Disbursement • Application Contract Creation • Rental Application Entry • Create Asset • Customer Payment • Business Payment • Create User
Changes to existing web services	Following web services are modified as part of the release: • Products • Asset Sub Type • Application Entry • Scenario Analysis • Account On-Boarding • Account Details

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Enhancement	Description
File to LoB Enhancement	OFSLL had only one parameter to control the Input file Processing either from a folder in server or database. This is now enhanced with separate parameters to control file processing of individually file type processed in the system.
Message Dashboard	OFSLL use MDB/JMS infrastructure to interface with third-party applications. To monitor the activity and perform other actions, a dashboard is provided which can do the following: • Display Health/Status of configuration • Display list of messages triggered using MDB/JMS infrastructure • Re-submit failed messages
Events Enhancement	The existing events framework has limited features to define a new Event and Event outcomes (Action) and to overcome these challenges, Event Framework is enhanced with the following: • Enable events to be triggered based on Entity change (Insert/Update) than the current Engine based. • Enhance support for current list of Event Types and Event Actions. Events feature enhanced to other business entities in OFSLL [Business, Customer, producer, Collateral, Dealer, etc.]. Current release only supports Account and Customer Entities. Supported will be added for other Entities in sub sequent releases. • Have single flow for current Online/Batch Event processing. • User can add Event Type specific criteria while defining Event criteria definition. • Removed restriction to limited set of batch Application/Account Events. • Improve usability of loading action parameters on click of a button. • Expose Events Actions using JMS/MDB.
Integration with IOT Cloud Service	In a practical scenario, equipment leasing companies often find it difficult to locate and track if a lessee is using the expensive leased assets as per the contractually agreed terms and conditions. It is difficult to employee individuals for this purpose in case of Lessors with large portfolios as the cost and effort prohibits the same. Oracle's solution to this is to provide out of the box integration of Oracle IOT Asset Monitoring Cloud service with OFSLL Leasing. The IOT asset monitoring cloud service provides real time information on asset location, health, utilization etc. that can be converted to an actionable item for OFSLL. For example as per the lease contract, if the equipment is only allowed to use at a specific location and if the lessee violates the same, it can be immediately reported to OFSLL and Lessor can take immediate action. Similarly, if the asset usage hours is fixed per day and any excess usage can be immediately reported so that corresponding penal actions can be initiated in the form of levying a penalty fee to the account.

2.1 <u>Usage based Leasing changes</u>

2.1.1 <u>Overview</u>

OFSLL currently supports only lease with functionality to charge customer with excess usage Fee at the time of the Termination/Payoff Quote.

In current release, OFSLL is enhanced to address specific use case of handling 'Usage based Leasing'.

Bill the customer only for the exact usage of the leased equipment is becoming a norm of the leasing industry nowadays and this enhancement is to address the important requirement of leasing industry. Rent Charge matrix can be defined on the basis of whether the lease agreement is of type 'Rental', 'Usage' and 'Rental plus Usage'.

These matrices will also allow the user to have tiered and non-tiered charges for each of the type of agreement also. Eventually, a Usage fee will be charged to the account based on the slabs defined. OFSLL will also support leases with functionality to charge customer with excess usage Fee at the time of the Termination/Payoff Quote. Hence, at the time of the Termination also, system refers to multiple rates defined to charge excess usage based on the excess usage slabs and the rental matrix.

Business Use Case:

Customers would benefit by being charged only when they use a product or service, rather than having to buy something outright.

Example:

A company does lease a copying machine. The monthly billing amount consists of two components: a flat rate (rental) that covers the fixed costs and a fee for usage charge (such as 1 cent per copy). Here, Usage is billed based on no. of units utilized from last bill to current billing date.

- The usage fee for the customer is based on the actual usage for the defined Cycle [Hourly, Daily, Weekly, Bi-weekly, Monthly, Quarterly, Half yearly, annually, etc.]. Whenever customer send a usage details to OFSLL, based on the defined rate slabs usage Fee will be charged on to the account, this usage fee is be communicated to the customer when statement is generated.

Here, customer pays only when using and pays as follows:

- Lease Rental Payment
- Usage-based Charge component.

Usage Computation Type:

- Unit Calculation supported based on following methods, to arrive 'Chargeable Units' for a specific cycle; considering the roll over or advance reset frequency.
    - ➢ **NO ROLLOVER** – Based on actual usage reported for the cycle and utilized units would be lapsed.

Cycle	Max Usage Allowed	Actual Usage	Available Usage	Excess Usage
Cycle 1	100	50	0	0
Cycle 2	100	75	0	0

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Cycle	Max Usage Allowed	Actual Usage	Available Usage	Excess Usage
Cycle 3	100	190	0	90

- **ROLLOVER** - Any unutilized [Cycle Max Usage- Actual Usage] from previous completed cycles

Cycle	Max Usage Allowed	Actual Usage	Available Usage	Excess Usage
Cycle 1	100	50	50	0
Cycle 2	100+50(ROLLOVER)	75	75	0
Cycle 3	100+25(ROLLOVER)	90	35	0

- **ADVANCE** - Any usage from future X number of cycles can be considered to be at the base billing before Excess Usage Charge; but any unutilized previous limit would be lapsed

  Example: Number of Cycles for Advance 2

Cycle	Max Usage Allowed	Actual Usage	Available Usage	Excess Usage
Cycle 1	200	50	150	0
Cycle 2	150	75	75	0
Cycle 3	200	200	0	0
Cycle 4	0	100	0	100

- **ROLLOVER & ADVANCE** - Any usage from future X number of cycles can be considered to be at the base billing before Excess Usage Charge and any previous unused units would be added.

Cycle	Max Usage Allowed	Actual Usage	Available Usage	Excess Usage
Cycle 1	200	10	190	0
Cycle 2	190	200	0	10
Cycle 3	200	200	0	0
Cycle 4	0	100	0	100

Usage Calculation Type:

Once 'Chargeable Units' are calculated, system calculates usage charge based on defined rates for specific usage cycle say 'Monthly' in this example in either of following approach

- TIERED
- NON-TIERED

Example:

Units received for a cycle is as follows:

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Base Units: 76; Cycle Excess: 51 and Life Excess= 65

Rate Chart	From Units	Charge
Base	0	1
Base	30	2
Base	75	3
Cycle Excess	0	4
Cycle Excess	50	5
Life Excess	0	6
Life Excess	50	7

Calculation of charges based on Tiered and Non Tiered is as follows:

Tiered

Base Charge = (29*1) + (45*2) + (2*3) = 125
Cycle Excess Charge = (49*4) + (2*5) = 206
Life Excess Charge = (49*6) + (16*7) = 406
Total Charge=125+206+406 = 737

Non Tiered

Base Charge = (76*3) = 228
Cycle Excess Charge = (51*5) = 255
Life Excess Charge= (65*7) =455
Total Charge=228+255+455=938

2.1.2 Lease Changes – Setup

Multiple changes are taken up in setup screens and user should ensure to maintain the recommended setup below.

Setup → Product

Lease Product > Header Block Changes

Added 'Agreement' Type fields to Setup > Product > Lease Product Tab

- User can choose the applicable agreement type for the product → Usage, Rental or Usage & Rental.
- This change is applicable for calculations methods – Interest Rate and Rent Factor.

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Field Name	Type	Reference	Comments	Values in LOV
Agreement Type	LOV	AGREEMENT_ TYPE_CD	Allows user to choose the applicable charge type.	UNDEFINED USAGE RENTAL USAGE RENTAL

Setup → Pricing

Following changes taken up in Setup > Pricing screen:

- Applicable for both Calculation method = Rent Factor & Interest Rate types.
- System shows the list of products based on selected agreement type.

Field Name	Type	Reference	Comments	Values in LOV
Agreement Type	LOV	AGREEMENT_ TYPE_CD	Allows user to choose the applicable charge type.	UNDEFINED USAGE RENTAL USAGE RENTAL

Setup → Contract

Rearranged or regrouped fields in 'Contract' setup:

Setup > Contract > Agreement Type

- New field 'Agreement Type' is introduced, which drives list of products to be shown in contract screen.
- Payment Caps, Extension and Due Day change fields are read only for 'Usage' type contracts.
- A new fee type 'Fee Usage' is introduced. Load 'Fee Usage' during Contract Setup

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- Maintain 'Fee Usage' → Min Amt =0 and Max Amt = 99999 to provide flexibility for system to charge the calculated 'Fee Usage' amount and not bounded by limits provided in setup.

Setup → Asset Type

Usage/ Rental Details Tab

Under Setup → Assets Types → Usage / Rental Details

There changes are applicable for following collateral types:

- Vehicle Collateral
- House Hold goods and Other Collateral

Field level details are explained in 'Collateral' section.

Validations related to enable / disable of fields documented in 'Collateral – Usage/ Rental Details' tab.

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Fields Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Agreement Type	Lookup - CHARGE_CALC _METHOD_CD	Yes	Usage	UNDEFINED USAGE RENTAL USAGE RENTAL
Calc Method	Lookup - CHARGE_CALC _METHOD_CD	Yes	Tiered	TIERED NON-TIERED
Usage Cycle	Lookup - USAGE_BILL_C YCLE_CD	Yes	Monthly	Undefined, Weekly, Bi-Weekly, Monthly, Quarterly, Semi Annually, Annually, Hourly, Daily
Min Usage	Number	Yes	0	Validates not to be greater than Max Usage.
Max Usage	Number	Yes	0	Validates not to be less than 'Min Usage'
Discount %	Number	Yes	0	Validation - should be between 0 to 100.
Usage Rollover/ Advance	LOV - USAGE_METHO D_CD	Yes	Non-Rollover	ROLLOVER NO-ROLLOVER ROLLOVER AND ADVANCE ADVANCE
Reset Frequency	Number	Yes	Term of Contract	Dynamically enabled/ disabled based on 'Usage Roll over/ Advance LOV values.
Usage Term Calc Method	LOV - ELASTIC_TERM _CAL_METHOD _CD	Yes	Avg Usage	AVERAGE USAGE ACTUAL USAGE

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2.1.3 Origination Changes

Changes under 'Contract(2)' tab

- New block 'Usage / Rental Details' is created
- Following new field is introduced in origination > contract (2) screen.

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Contract (2) Usage/ Rental Details → Agreement Type	Lookup	Yes	Undefined	Read Only and refer from selected product.

2.1.4 Collateral Changes

Changes under 'Collateral Details tab

- Under Collateral Tab > Collateral Details (Origination / Servicing / Collateral Management Tabs)
- 'Elastic Term' field is available only for Servicing → Collateral.
- Changes made at account level are applicable for that account only.
- Min/Max/Rollover/Non-Rollover are with reference to **Usage/Rental Cycle** and not Billing Cycle.
- There changes are applicable for following collateral types:
  - ➢ Vehicle Collateral
  - ➢ House Hold goods and Other Collateral

Change Details:

Block	Existing Field Name	New Field Name	Data Type	Default Value	Validations / Comment
USAGE / RENTAL CALCULATION					
Usage / Rental		Calc Method	LOV	TIERED	

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Calculation					
USAGE / RENTAL RECEIPT					
Usage / Rental Receipt		Usage / Rental Details	LOV	ACTUAL	
USAGE / RENTAL DETAILS (CYCLE)					
Usage / Rental Details (Cycle)					New block is created called 'Usage/ Rental Details (Cycle)
		Usage / Rental Cycle	LOV		New Lookup USAGE_BILL_CYCLE_CD
		Min Usage per cycle	Number		Should not be greater than Max Usage.
		Max Usage per cycle	Number		Should not allow less than 'Min Usage'
		Discount %	Number	0	Should be between 0 to 100.
		Usage Rollover/ Advance	LOV	No-Rollover	New Lookup - USAGE_METHOD_CD
		Rollover / Advance Reset	Number	Term of Contract	Dynamically enabled/ disabled based on 'Usage Roll over/ Advance LOV values.
		Elastic Term Calc Method	LOV	AVERAGE USAGE	New Lookup - ELASTIC_TERM_CAL_ METHOD_CD (Details provided in 'Auto Adjust usage Term' section)
USAGE DETAILS (LIFE)					
Usage Details (Life)					This block was called as 'Usage Details' now renamed as 'Usage Details (Life)
Usage Details (Life)	Charge				This field used to calculate 'EXCESS USAGE FEE' in payoff quote and termination transactions.

						Hidden this field from UI. System instead of referring the 'Charge' field, it refers 'Usage Charge Matrix' tab under respective collateral.

2.1.5 Servicing Changes

Changes under 'Collateral tab:

Servicing → Account → Collateral Details:

- Upon funding, system automatically brings in the origination details to servicing collateral, including 'Usage Charge matrix' details.

- Only 'Usage Charge Matrix' details are allowed to ADD / EDIT during servicing and collateral header block → Usage / Rental Details (Cycle) or Usage Details (Life) not allowed to modify in servicing stage.

Changes under 'Contract and Account tab:

Servicing → Account → Contract / Account Information tabs:

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- New block and field 'Agreement Type' is introduced under Contract Information and Account Information blocks.

Interest and Accruals

Accrual Start Dt	01/01/2018	
Last Accrual Dt	01/01/2018	
Stop Accrual	___	
Accrual Method	INTEREST BEARING	
Base Method	30/360	
Accrued Interest	120.00	
Index Type	FLAT RATE	
Index Rate	0.00	
Margin Rate	4.00	
Rate	4.00	
Depreciation Value	5,400.00	
Residual Value	600.00	
Residual %	10.00	
Rent Charge	75.16	
Balloon Amt	0.00	
Auto Include Residual Value	___	
Residual Valuation	NONE	

Rate Change Details

Rate Start of the Year 4.00
Last Rate Adj Dt
# of Rate Adjs (Year) 0
# of Rate Adjs (Life) 0
Reschedule Method UNDEFINED
Reschedule Value 0.00

Extn and Due Dates

# of Extensions (Life) 0
# of Extension Term (Life) 0
# of Due Day changes(Year) 0
# of Due Day changes(Life) 0
Last Extn Dt
Due Day Change Dt

Early Termination

Allowed To Terminate ✔
Billed Term 5
Lease Amt Recovered % 50

Additional Details

Total Term 6
Paid Term 0
Maturity Dt 07/01/2018
Security Deposit 0.00

Recourse Details

Recourse ___
Recourse Type
Recourse Reason
Max Recourse % 0.00
Recourse Amt 0.00

Cure Letter

Start Date
Expiry Date

Others

Stmt Preference Mode PHYSICAL
Time Zone

Time Bar Details

Start Date
End Date
Days to Time Bar

Settlement Information

Effective Dt
Good Through Dt
Agreed Amt
Paid Till Dt

Usage/Rental Details

Agreement Type USAGE

Contract Information

[Return]

Contract

Contract Dt 01/01/2018
Instrument SMPL_MTHLY_ARR_FBILL_RV
Amt Due at Signing 0.00
Total of Pmts (Estimated) 25,000.02
Balloon Amt 0.00
Due Day 1
1st Pmt Dt 02/01/2018
Maturity Dt 10/01/2018
Index FLAT RATE
Index Rate 0.00
Contract Margin Rate 0.00
Contract Rate 0.0000
Security Deposit 0.00
Gross Capitalized Cost 25,000.00
Capitalized Cost Reduction (-) 0.00
Adjusted Cap Cost (=) 25,000.00
Residual Value (-) 0.00
Residual % 0.0000
Depreciation Value (=) 25,000.00
Rent Charge (+) 0.00
Total Of Base Pmts (=) 25,000.00
Lease Term (/) 9
Base Payment (=) 2,777.78
Estimated Sales Tax (+) 0.00
Sales Tax % 0.0000
Estimated Pmt (=) 2,777.78
Contract Recvd Dt 01/01/2018
Contract Verify Dt 01/01/2018
Contract Verified By

Depreciation

Depreciation Start Dt
Depreciation Method UNDEFINED
Depreciation Convention

Tax

Tax Life 0.00
Ads Life 0.00
Salvage Value 0.00
EOT Value 0.00

Instrument Details

Accrual Method INTEREST BEARING
Start Dt Basis EFFECTIVE DATE
Base Method 30/360
Billing Method LEVEL
Billing Type STATEMENT
Time Counting Method ACTUAL DAYS
Installment Method EQUATED PAYMENTS
Calendar Method GREGORIAN
Start Days 0
Stop Accrual Days 9999
ACH Fee Ind ___

Lease Contract

Sales Tax Mode AT CYCLE TIME
Sales Tax Method PAYMENT STREAM
Lease Type DIRECT FINANCE

Billing

Bill Cycle MONTHLY
Pre Bill Days 21

Early Termination

Allowed To Terminate ✔
Billed Term 5
Lease Amt Recovered % 50

Residual Details

Minimum Residual % 10
Maximum Residual % 100
Auto Include Residual Value ✔
Residual Valuation CONTRACT MARKET VALUE

PDC

PDC ___
PDC Security Ind ___

Rate Cap and Adjustments

Increase Per Year 2.00
Increase Max Lifetime 5.00
Increase Floor 0.00
Increase Ceiling 36.00
Decrease Per Year 2.00
Decrease Max Lifetime 5.00
# of Adjs/Year 2
# of Adjs/Life 5

Recourse Details

Recourse ___
Recourse Type
Recourse Reason
Max Recourse % 0.00
Recourse Amt 0.00

Post Maturity

Default Rate ✔
Index FLAT RATE
Post Maturity Rate 0.00

Others

Stmt Preference Mode PHYSICAL

Promotion

Promotion NONE
Type NONE
Promotional Period Type
Promotional Period 0
Cancellation Delq Days 0
Tolerance Amt 0.00
Index
Index Rate 0.00
Margin Rate (+) 0.00
Promotional Rate (=) 0.00

Usage/Rental Details

Agreement Type USAGE

Changes under 'Collateral tab – Usage Summary'

Usage Summary have 2 levels as follows:

- Usage Summary (Parent)
- Usage History (Child)
- Usage Charge (Child)
  - Under Collateral Tab > Usage History (Servicing / Collateral Management Tabs)
  - Collateral Management tab, these details are VIEW only.
  - Placement of this tab is as shown in the following figure.

Print screen showing 'Usage Summary' screen with child tab

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Usage Summary – Field Details – Read only block

Field Name	Data Type	Mandatory	Default Value	Comment
Due Date	Date	Yes	Billing cycle run date	Read only field. System generated
Net Units	Varchar	Yes	0	Refer calculated net units
Min Units	Number	Yes	0	Refer from Collateral → Header Block
Chargeable Units	Number	Yes	0	Net Units or Min Units whichever is higher
Units Base	Number	Yes	0	Calculated Base Usage Units
Charge Base	Number	Yes	0	Calculated Base Usage Charge
Un Used Units – Cycle	Number	Yes	0	Indicates unused units for given cycle (till reset period)
Excess Units (Cycle)	Number	Yes	0	Calculated Excess Usage Units for cycle
Excess Charge (Cycle)	Number	Yes	0	Calculated Excess Usage Charge
Un used Units (Life)	Number	Yes	0	Indicates unused units for life
Excess Units (Life)	Number	Yes	0	Calculated Excess Usage Units for life.
Excess Charge (Life)	Number	Yes	0	Calculated Excess Usage Charge for life

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Field Name	Data Type	Mandatory	Default Value	Comment
Charge – Total Usage	Number	Yes	0	Sum of charge – Base + Cycle + Life for a billing cycle
Elastic Usage Term	Number	Yes	0	Indicative remaining term based on usage pattern.

Usage History - Fields Details – Child Block

Field Name	Data Type	Mandatory	Default Value	Comment	Incremental / Actual
Ext Ref No.	Varchar	No	NA	Input field or expected from File or web service.	BOTH
From Date	Date	Yes	GL Date	Validates not to accept future Date. Validates not to accept date less than 'Contract Date' or Conversion Date or Account on boarding Date.	Incremental- Both Start and End Date should have unique range. Actual- Will consider the latest record.
To Date	Date	Yes	GL Date	Validates not to accept future Date. Validates to be greater than or equal to 'From Date'	Incremental- Both Start and End Date should have unique range. Actual- Will consider the latest record.
From Units	Number	No	0	Validates not be greater than To Units	Incremental- From Units are mandatory Actual- Not mandatory.
To Units	Number	No	0	Validates not to be less than From Units	Incremental- To Units are mandatory Actual- Not mandatory.
Gross Units	Number	Yes (Conditional mandatory)	0	To Units – From Units Would be mandatory, if From and To Units not given.	Incremental- Non Mandatory Actual- Would be mandatory, if From and To Units not given.

Field Name	Data Type	Mandatory	Default Value	Comment	Incremental / Actual
				System validates if From – To Units not equal to gross units; if providing all three values.	
Non Chargeable Usage Units	Number	No	0	Validates not to be greater than 'Gross Units'	BOTH
Discount Units (Read Only)	Number	No	0	Refer discount % defined at Collateral header block to derive discount units. Does not accept decimal.	BOTH
Net Units (Read Only)	Number	Yes	0	Gross Usage Units – Non Chargeable Usage Units – Discount Units.	BOTH
Comments	Varchar	No	NULL		BOTH
Source	Varchar	Yes	NULL	Stamps the source say File/ Web Service	BOTH
Posted By	Varchar	Yes	NULL	Stamps the user id of (File/ Web Service)	BOTH
Posted Date	Date	Yes	NULL	Stamp the date of posting.	BOTH

Usage Charge - Fields Details – Child Block

System shows the breakup of 'Base Usage Charge' and 'Excess Usage Charge for Cycle and Life' in this tab as shown below:

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Recording Usage Information and calculation

Usage Information can be recorded into OFSLL using web service or flat file format.

OFSLL supports to receive usage information in following formats.

Actual Usage – Details received in the file is treated as latest record and system inserts the latest record with Active/ current status as 'Y' in database where processed status = 'N'.

Incremental Usage - Details received in the file is treated as incremental record and system inserts the record with Active/ current status as 'Y', without making any changes to existing record in usage history table.

File format or web service always reads and insert the data received from the external system based on value selected at collateral level.

Example: Actual Usage

Txn Date	From Meter	To Meter	Start Date	End Date	Gross Usage Units	Non-Chargeable Units	Net Usage Units	Active/ Current	Processed
Jan 20	0	100	Jan 15	Jan 20	100	20	80	N	N
Feb 1	0	220	Jan 21	Feb 1	220	40	180	Y	N

In this case, the 'Chargeable Usage' to be considered for the given cycle is 180 (taken with reference to record Active / Current = Y and Processed = N

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Incremental usage:

Txn Date	From Meter	To Meter	Start Date	End Date	Gross Usage Units	Non Chargeable Units	Net Usage Units	Active/ Current	Process ed
Jan 20	0	100	Jan 15	Jan 20	100	20	80	Y	N
Feb 1	101	200	Jan 21	Feb 1	100	10	90	Y	N

In this case, the 'Chargeable Usage' to be considered for the given cycle are 170 (taken with reference to record Active / Current = Y and Processed = N (Rollover value of both the records).

Other validations considered to arrive 'Chargeable Units':

- **Min Usage -** Min Units are considered as 'Chargeable Units'; in case calculated falls less than min units (Chargeable Units = Net Units subject to 'Min Usage')

- **Max Usage -**Indicates 'Usage' to be charged as 'Base' value for the given billing cycle. Any usage units beyond 'Max Usage' is charged based on flag value 'Calc Method' – Tiered or Non-Tiered.

- **Discount % -** Based on discount %, system calculates applicable discount units on 'Gross – Non chargeable Units' to arrive Net Usage' in 'Usage History' tab.

Flow

- System calculates the 'Chargeable units' considering Discount units and min units and calculates breakup units for base, excess cycle and excess life considering units rollover method, subject to Max Usage for cycle and roll over reset frequency.

- Third party system can send unit information multiple times within cycle period.

- On the cycle run date, batch job calculates the charge based on Tiered and Non-Tiered method and includes in customer statement.

Example (Illustrative numbers only for reference)

Contract Date: 01 Jan 2018

Current Business Date: 01 April 2018

First Bill: 01 Feb 2018

Term: 36 Months

Maturity Date: 01/01/2021

Min Units: 25

Max Units: 100

Discount Units: 10%

Roll over Method: No-Rollover

Rate Slab

From Units	Charge Type	Rate
0	Base	1 $
101	Excess Cycle	2 $
201	Excess Cycle	3 $

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Usage Details for Account 1:

Gross Units	Non Chargeable Units	Net Units	Discount Units	Min Units	Chargeable Units
300	20	280	28	25	252

Usage Details for Account 2:

Gross Units	Non Chargeable Units	Net Units	Discount Units	Min Units	Chargeable Units
30	20	10	1	25	25

Net Units = Gross Units – Non Chargeable Units – Discount Units

Chargeable Units = Net Units subject to minimum Units.

- In case of Account 1: Chargeable Units are 252
- In case of Account 2: Chargeable Units are 25 (this account is subjected to 'Min Unit' utilization).

Once 'Chargeable Units' are arrived, system calculates distinguish the 'Base' Units and 'Excess' Units to refer and apply corresponding rate matrix.

Fee to be posted for 'March' Bill for multiple options – Account 1:

Usage Calc Method	Example
Tiered Charge	Up to 100 Units = 100 * 1$ = 100 $ And Excess Usage 152 Units (System considers only 'Excess Usage' volume to check the slabs) Up to = 100 * 2 $ = 200 $ Over 100 Units i.e., 52 Units = 52 * 3 = 156 $ Total charge = 456 $
Non-Tiered Charge	Up to 100 Units = 100 * 1$ = 100 $ And Excess Usage 152 Units (System considers only 'Excess Usage' volume to check the slabs) Being the Excess usage qualifies 'From 151' rate slab, charge would be 152 * 3 = 453 Total Charge = 553$

Fee to be posted for 'March' Bill for multiple options – Account 2:

Usage Calc Method	Example
Tiered Charge	Up to 100 Units = 25 * 1$ = 25$

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Usage Calc Method	Example
	And
	No Excess Usage recorded in example.
	Total charge = 25$ $
Non-Tiered Charge	Up to 100 Units = 25 * 1$ = 25$
	And
	No Excess Usage recorded in example.
	Total charge = 25$ $

Usage Roll Over / Advance

New LOV is defined called 'Usage Roll Over/ Advance with following values – Non Rollover, Roll Over, Advance Usage and Rollover & Advance with default value – 'Non-Rollover.

- **Non-Rollover** – This option indicates that unutilized units in current cycle will be lapsed.
- **Rollover** – This option indicates that unutilized units from previous cycle are carried over and added as 'base' units to next cycle incrementally.
- **Rollover & Advance** - This option indicates that system bills the customer at the base rate, considering the usage available for the life of account and includes un-utilized units from the previous cycle.
- **Advance Usage** – This option indicates that system bills the customer at the base rate, considering the usage available for the life of account. Here un-utilized previous units will be lapsed.
- **Notes:** Here Rollover / Advance is bracketed for fixed reset period. Example – Contract starts at Jan and rollover set to 3 months for a monthly usage billing cycle; rollover resets at end of 3rd month and from April new rollover set starts.

Example for Rollover & Advance:
Max usage defined for asset = 100 Units
Billing cycle = Monthly
Term of Account = 36 Months
Max Usage for Asset = 100 * 36 = 3600 Units

Usage Matrix defined as follows:

From	Charge per Unit
0	1
3601	2

Here, system generates 'Usage Bill' at the rate of 1$ till 3600 Units and would be charged at the rate of 2$ of any usage over and above 3600 units.

Roll Over / Advance Reset:

New field is defined called 'Roll Over/ Advance Period', which allows the user to input the number field.

This field indicates that after how many Usage / Rental cycles, system resets the cumulated value.

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- This field is **enabled** for selection, only if 'Rollover, Rollover & Advance and Advance usage' values are selected in Usage Roll Over / Advance LOV.
- This field indicates that how may usage / rental cycles system rolls over the cumulated unutilized usage forward or how many units with in cycle, system considers for 'future advance'.

  Example:

  Max usage defined for asset = 100 Units

  Usage / Rental cycle = Monthly

  Term of Account = 36 Months

  Max Usage for Asset = 100 * 36 = 3600 Units

  Usage Roll Over / Advance = Roll Over

  Rollover / Advance Reset = 3

Usage Matrix defined as follows:

From	Charge per Unit
0	1
1201	2

Here, accumulation of unutilized units are allowed till 3 months and any unutilized units on 3rd month would be lapsed. For 4th month, max units available would be 100 for that month.

  Example for Rollover & Advance:

  Max usage defined for asset = 100 Units

  Billing cycle = Monthly

  Term of Account = 36 Months

  Max Usage for Asset = 100 * 36 = 3600 Units

Usage Matrix defined as follows:

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Example:

Max usage defined for asset = 100 Units

Usage / Rental cycle = Monthly

Term of Account = 36 Months

Max Usage for Asset = 100 * 36 = 3600 Units

Usage Roll Over / Advance = Roll Over

Rollover / Advance Reset = 3

Usage Matrix defined as follows:

From	Charge per Unit
0	1
1201	2

Here, accumulation of unutilized units are allowed till 3 months and any unutilized units on 3rd month would be lapsed. For 4th month, max units available would be 100 for that month.

Validations & Error Messages:

Following Validation / Error Messages are applicable for Web Service / Flat File.

Note: System doesn't allow user to modify the record posted by source = File or Web service.

Validation	Error Message
Both Start and End Date validates to have unique range.	'Date Range' overlaps existing records without corresponding 'Ext Ref No'.
Date From – validates not to accept future Date	'Date From' cannot be future date.
Date From – Validates not to accept date less than 'Contract Date' or Conversion Date or Account on boarding Date.	'Date From' cannot be less than 'Contract Date' or Conversion Date or Account on boarding Date.
Date To – Validates not accept future Date.	'Date To' validates not be future date
If 'Date From' on or before the 'Usage Run Date Last' system rejects the record.	Billing details would be up to Usage Run Date Last only.
'Date To' to be greater than 'From Date'	'Date To' to not be less than 'Date From'
Non-Chargeable Units - should not be greater than 'Usage Value'	Non Chargeable Units - should not be greater than 'Usage Units

- Usage History upload/intake validations related to Dates are checked against GL date i.e. not system date and corresponds with 'Usage Cycle Date'.

Notes: Columns of Usage Charge History table are important to capture necessary details like Usage Cycle Date, Units Billed, Units Billed at Base Rate and Amount, Units Billed at Excess Rate and Amount, Rollover Units etc. All of this data is useful for Statement.

- Any unit information received for modification (say with External reference number) related to usage cycle, which is already processed; system rejects record. (External system sends the unit information to bill for current cycle).

- For Current release back dating of units is restricted.

- System allows to Add/ Edit record only for 'Unprocessed' records.

- System rejects the 'Usage History' record and log the reject record with corresponding reason.

- Discount Units are calculated based on 'Discount %' defined at collateral level on Gross Units – Non Chargeable Units

- Net Units = Gross Units – Non Chargeable Units - Discount Units.

- While processing the file, system updates the details under Collateral Tab > Usage History; after verifying that Asset Status is 'Active'. Otherwise show log error / show message on screen stating that 'Cannot update usage history, Asset Status is not active'

- If user inputs data in 'History' tab using ADD and SAVE button. Here EDIT option is available for 'Unprocessed' records only.

- If Usage History tab gets update through web service. Here, request verifies the Asset status is 'Active'; otherwise reject record update and post error stating that 'Cannot update usage history, if Asset Status is not active'.

- For Flat File / Web service, system first check the duplicate check through 'External Ref' Number.
  - ➢ If record already exists, system modifies the existing record; which in turn system reverses and repost the original transaction.
  - ➢ If record doesn't exists, system creates new record after validating the scenarios provided in matrix.

Calculation of Usage Charge:

- A new batch (SET-TPE → TXNUSG_BJ_100_01 → USAGE CHARGE PROCESSING) is defined called 'Usage / Rental' charge job and scheduled to run based on 'Usage / Rental Cycle'.

- This batch job picks the 'unprocessed' records in 'Usage History' tab and consolidate the usage and arrive at 'Chargeable Units' subject to minimum units for rolled up records.

- Once 'Chargeable Units' are arrived, system breaks up the base units and excess units to charge with reference to corresponding charge setup.

- System posts 'Fee Usage' transaction to corresponding account individually for each asset with asset # in 'Asset #' field of transaction.

  Example:

  Date: 01.01.2018

  Asset #: 1234

  Amount: 100$

  Comments: Usage Fee

- If no usage is received for a given month, behaviour is as follows:

- ➢ System doesn't not post any fee (not even min fee)
- ➢ In case of 'rollover' = Y → system would rollover the full units to next cycle (if not elapsed for current cycle).

Min Units (Read only field)	Number	Yes	Derived Value	Value derived from 'Min Units' from Header block
Chargeable Units	Number	Yes	0	Net usage Units or Minimum Units whichever is higher

Assumptions:

- Financial institution will agree to supply the 'Non-Chargeable Units' or agree to provide 'Discount %' on usage units.

  Ex: In case of Printer lease

  - ➢ Non Chargeable Units are number of sample /test prints taken which will not be billed.
  - ➢ Discount units are the number of units that FI and Customer has agreed for discount/rebate.

- 'Fee Usage' is considered as one of the fee balance.

  - ➢ If this 'Fee Usage' to be considered for Metro II reporting, at the time of implementation, user should select the 'Billed' flag as 'Yes' in balances.
  - ➢ If the flag for this balance is set to 'No', any outstanding amount of 'Fee Usage' is reported against 'Current Balance' field of Metro II report.

- To properly appropriate the 'Fee Usage' balance, user is expected to define the 'Fee Usage' in spread to adjust the payment after Interest Billed and Principal Billed.

- User is allowed to change the 'Rate Slab' in servicing stage and if lender-borrower is in agreement to change the rate at servicing stage; business user is expected to operationally post the fee transaction on account and make changes in rate slab.

- In case of asset is substituted, details of charges and usage history is ported to new collateral operationally.

Changes in Customer Statement

- The statement explains the following details in a separate section in screen and in report.
- Usage billing breakup for given statement period along with 'Elastic Usage Term'.

New tab beside 'Transactions' Tab – USAGE SUMMARY

This tab is similar to 'Usage summary' screen at Account > Servicing with following exceptions:

- Asset # is new field and details of usage summary including details in child tabs is displayed at each asset level.
- System shows – Usage Summary (parent) including Usage History (child) and Usage Charge (child) details for the corresponding asset number.

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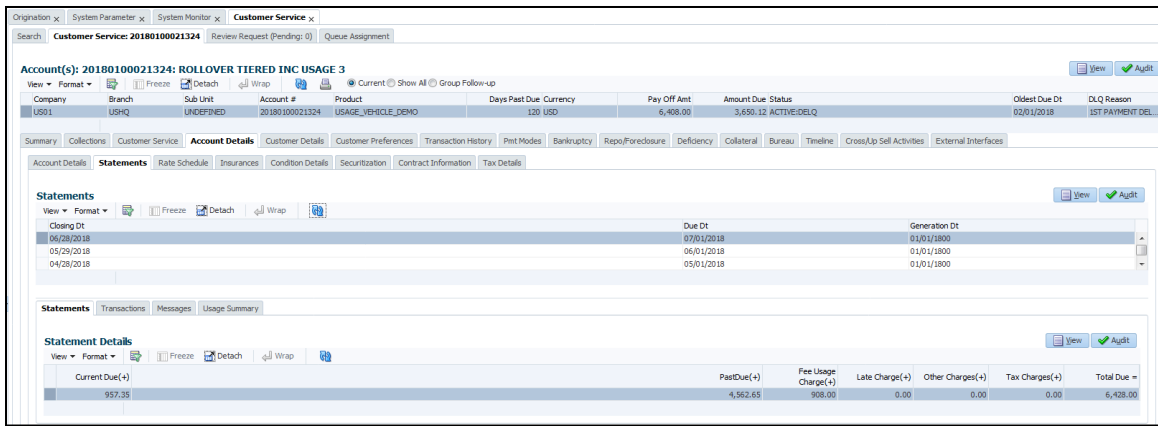
Miscellaneous Changes & Other Impact Areas

- Elastic Term of 'Usage Term' based on Usage (Applicable only for 'Usage Rental Details – Cycle')

  System calculates the 'Usage Term' based on the following two methods (New LOV – Actual usage and Average Usage):

  - ➢ Elastic Term based on Usage Factor – **Actual Usage**
  - ➢ Elastic Usage Term based on Average Usage – **Average Usage**

Term	12		Usage	Min	Max	Base Units				
			Cycle	50	100	1200				
Cycle	Billed term	Remaining Term	Max Usage Allowed	Actual Usage	Usage not Utilized (Cycle)	Cummulative Unutilized Usage	Cumulative Utilized Usage	Adjusted Usage Term based on Usage Factor (Actual Usage)	Average Usage	Usage Rate	Adjusted Usage Term based on Avg Usage
Cycle 1	1	11	100	200	-100	-100	200	5.0	200.0	0.50	5.50
Cycle 2	2	10	200	250	-150	-250	450	3.0	225.0	0.44	4.44
Cycle 3	3	9	300	200	-100	-350	650	2.8	216.7	0.46	4.15
Cycle 4	4	8	400	200	-100	-450	850	1.8	212.5	0.47	3.76
Cycle 5	5	7	500	500	-400	-850	1350	0.0	292.9	0.34	2.39
Cycle 6	6	6	600	89	11	-839	1439	0.0	239.8	0.42	2.50
Cycle 7	7	5	700	78	22	-817	1517	0.0	216.7	0.46	2.31
Cycle 8	8	4	800	178	-78	-895	1695	0.0	211.9	0.47	1.89
Cycle 9	9	3	900	200	-100	-995	1895	0.0	210.6	0.47	1.42
Cycle 10	10	2	1000	89	11	-984	1984	0.0	198.4	0.50	1.01
Cycle 11	11	1	1100	80	20	-964	2064	0.0	187.6	0.53	0.53
Cycle 12	12	0	1200	100	0	-964	2164	0.0	180.3	0.55	0.00

Changes:

- Collateral > Collateral Details > Elastic Term Calc method LOV is provided to define 'Usage Term Calc Method' with option to choose either of options provided above.

- A new batch job is created to show the 'Elastic Usage Term' based on usage till statement generation. The value to be shown is based on LOV value selected above for each collateral.

- Customer statement provides details of 'New Usage Term' as separate line item for collateral.

Impact on Payoff Quote

- Payoff quote show details under EXCESS USAGE FEE.

- If user inputs the 'Current Usage' in transaction parameter, system dynamically calculates the applicable 'Excess Usage Fee' based on matrix.

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Impact on Termination Transaction

- If user tries to post the 'Termination' transaction on account, where unprocessed usage units are lying on account; system shows error message stating 'Termination not allowed, process unbilled usage.' and transaction not allowed to post on account.
- User is expected to process the usage units by posting non-monetary transaction 'Usage Fee Maintenance' on account to process units and post 'Termination' on account.

Other Impact on Termination:

- Termination shows details under EXCESS USAGE FEE.
- If user inputs the 'Current Usage' in transaction parameter, system calculates the applicable 'Excess Usage Fee' based on Matrix and Calc method – Tiered / Non-Tiered.
- Here, system posts 'Fee Usage Adjustment Txn Plus' with the calculated amount as above.

Impact on Web Services – Newly created / updated

- New web service to receive the Usage details – POST is created.
- Account on-boarding POST service to receive the Usage Rate Matrix (Override) – Usage & Rental – Update Details
- Application Entry POST Service to receive the Usage details as part of the Collateral - POST
- Application Details GET service to send usage details (Query Service)
- Application Update PUT service to update usage details.

2.1.6 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.2 <u>Rental based Leasing changes</u>

2.2.1 <u>Overview</u>

OFSLL today supports only lease with functionality to charge customer with excess usage Fee at the time of the Termination/Payoff Quote.

In current release, OFSLL enhanced to address specific use case of handling 'Renal Based Leasing'.

This enhancement allows lessor to address specific use cases of handling the 'Rental Based Agreements'. Mainly, useful for the Equipment leasing industry, this change will enable the user to charge the customer with fixed rentals.

Business Use Case:

Customers would benefit by being charged only when they use an asset, rather than having to buy something outright.

In the rent based lease contracts customer can have option to pay the lease payment and/or the excess usage fee based on the actual usage based on the asset type.

- **Fixed Rate Rental Contract:** Some kind of assets are leased based on duration and we can't measure the usage (like furniture/ medical equipment / farming accessories)

  In such cases, companies charge based on the durations that the asset been used. Customer can opt for onetime payment or cycle payment. [Based on First Payment Date and Maturity Date]

  Example [Fixed Rate]**:** Medical Equipment renting for instance Nebulizer renting @ Weekly Rental $15, Monthly Rental $30. I**n this case there No Usage.**

  Here, customer pays only when using and pays as follows:

  Lease Rental Payment based on the duration

- **Usage Based Rental Contract**: Some kind of assets are leased based on the usage limit (like vehicles) + duration

  In such cases, companies will charge based on the Usage Computation Types for base and excess usage. Customer can opt for only onetime payment or cycle payment.

  Example [Usage Based]**:** A company does renting an All-terrain Fork lift can be rented for 3 weeks. Customer has agreed for 3 weeks maximum of 120 Hours, any excess engine hours will be charged @$25 per hour.

  - Reservation Deposit
  - Cleaning Fee
  - Replacement Cost
  - Delivery Charges

  Here, customer pays only when using and pays as follows:

  - Lease Rental Payment based on the duration
  - Usage-based Charge component (To be included in the monthly bill or at termination)

Usage Computation Type:

- Unit Calculation supported based on following methods, to arrive 'Chargeable Units' for a specific cycle; considering the roll over or advance reset frequency as zero.

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> ➤ NO ROLLOVER – Based on actual/incremented usage reported for the cycle and utilized units would be lapsed.

Usage Calculation Type:

- In this case, base usage charge is always zero. Once 'Excess Chargeable Units' are calculated, system calculates excess usage charge based on defined rates for specific usage cycle say 'Monthly' in NON-TIERED approach

  Following illustrate how system will calculate the non-tiered 'Rental'

  Following is the Usage and Rental matrix

Cycle	Base Rental		Excess Rental		Discount % per Cycle	Discount Amount per Cycle
	Cycle From	Charge per cycle	Cycle From	Charge per cycle		
Weekly	1	50	1	70	1	10
Weekly	5	10	4	20	2	12
Monthly	1	200	1	220	4	15
Monthly	5	150	4	180	5	18

For Rental Amount, system will calculate the both 'Discount Amount' and 'Discount %' and deduct the minimum of these two values from the rental amount per cycle.

Cycle	Term	Calculation		
		Rental Amount Per Cycle	After Discount	Excess Rent per Week
Monthly	3	200	200 minus [Minimum 4 % 200 = 8 or 15] = 192	If 3weeks are excess 70 minus [Minimum 2 % 70 = 1.4 or 12] = 68.6
Monthly	5	150	150 minus [Minimum 5 % 200 = 10 or 18] = 140	If 4 weeks are excess 20 minus [Minimum 2 % 20 = 0.4 or 12] = 19.60
Weekly	2	50	50 minus [Minimum of 1% 50=0.5 and 12] = 49.5	If 2 weeks are excess 70 minus [Minimum 1 % 70 = 0.7 or 10] = 69.3

2.2.2 Changes in Setup

For this enhancement, following changes/setups are done in all the below setup screens

1. Product

2. Pricing

3. Contract

4. Asset Type

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5. Cycles

6. Edits

7. Transaction Codes

Setup > Product > Lease Product > Header Block Changes

New 'Agreement' Type fields added to Setup > Product > Lease Product Tab

- User can choose the applicable agreement type for the product → Rental or Usage & Rental.
- This change is applicable for calculations methods – Interest Rate and Rent Factor.

Field Name	Type	Reference	Comments	Values in LOV
Agreement Type	LOV	AGREEMENT_TYPE_CD	Allows user to choose the applicable charge type.	UNDEFINED USAGE RENTAL USAGE RENTAL

Setup → Pricing

Following changes taken up in Setup > Pricing Screen

- Applicable for both Calculation method = Rent Factor & Interest Rate types
- System shows the list of products based on selected agreement type.

Field Name	Type	Reference	Comments	Values in LOV
Agreement Type	LOV	AGREEMENT_TYPE_CD	Allows user to choose the applicable charge type.	UNDEFINED USAGE RENTAL USAGE RENTAL

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Setup → Contract

- Rearranged or regrouped fields in 'Contract' setup

  - Setup > Contract > Agreement Type
  - New field 'Agreement Type' is introduced, which drives list of products to be shown in contract screen.
  - Payment Caps, Extension, Rate Caps, Residual Details, Extension and Due Day change fields are read-only for 'Rental and Usage Rental' type contracts.
  - Introduced two new balances. Make sure, Load 'Rental Charge' for Rental and 'Fee Usage and 'Rental Charge' for Usage Rental agreement type
  - Maintain 'Fee Usage' and Rental Charge → Method = Fault Amount, Min Amt =0 and Max Amt = 99,999

  New balances will be loaded if contract's agrement type is 'Rental' or 'Usage Rental'

Fee maintenance

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Setup → Asset Type

Usage/ Rental Details Tab

- Under Setup > Assets Types > Usage / Rental Details
- Placement of this tab is as shown in the following figure.
- There changes are applicable for following collateral types:
  - ➤ Vehicle Collateral
  - ➤ House Hold goods and Other Collateral
- Field level details are explained in 'Collateral' section.
- Validations related to enable / disable of fields documented in 'Collateral – Usage/ Rental Details' tab.

Fields Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Agreement Type	Lookup - CHARGE_CALC_METHOD_CD	Yes	Usage	UNDEFINED USAGE RENTAL USAGE RENTAL
Calc Method	Lookup - CHARGE_CALC_METHOD_CD	Yes	Tiered	TIERED NON-TIERED
Usage Cycle	Lookup - USAGE_BILL_CYCLE_CD	Yes	Monthly	Undefined, Weekly, Bi-Weekly, Monthly, Quarterly, Semi Annually, Annually, Hourly, Daily Disabled for 'Rental'
Min Usage	Number	Yes	0	Validation - Should not be greater than Max Usage. Disabled for 'Rental'
Max Usage	Number	Yes	0	Validation - Should not allow less than 'Min Usage' Disabled for 'Rental'
Discount %	Number	Yes	0	Validation - Should be between 0 to 100.
Usage Rollover/ Advance	LOV - USAGE_METHOD_CD	Yes	Non-Rollover	ROLLOVER NO-ROLLOVER ROLLOVER AND ADVANCE ADVANCE Disabled for Rental and Usage Rental with 'NO-ROLLOVER'

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Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Rollover/ Advance Reset	Number	Yes	Term of Contract	Dynamically enabled/ disabled based on 'Usage Roll over/ Advance LOV values. Disabled for Rental and Usage Rental with '0'
Usage Term Calc Method	LOV - ELASTIC_TERM_CAL_METHOD_CD	Yes	Avg Usage	AVERAGE USAGE ACTUAL USAGE Disabled for 'Rental'
Discount Amount	Number	Yes for rental and usage rental	Null	Should be greater than 0 Disabled for usage
Security Deposit	Number	Yes for rental and usage rental	Null	Should be greater than 0 Disabled for usage
Excess Rent Collection Method	LOV EXCESS_RENT_COL_METHOD_CD	Yes for rental and usage rental	Using Usage Matrix	Using usage matrix Using rental matrix

For Usage Rental

For Rental

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Usage Charge Matrix

Rental Charge Matrix

Setup → Cycles → Lease

Create Copy

- Under Setup > Cycles > Lease, provided a 'New Product Cycle' field with 'Create Copy' button
- Select the existing 'Cycle Definition' record, Input the 'Lease Product Code' in the 'New Product Cycle' then click of the 'Create Copy', system will create the new Cycle Definition with the new product.
- System will not copy the Cycle Code Responsibility Definition records under selected 'Cycle Definition'.
- While creating the record, system generates its own 'Cycle' code.
- If user input the wrong leas product code, then system will show 'Product not found' error.
- If user input the existing cycle's product, then system will show 'Duplicate Value for Cycle and Product combination' error

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Setup → Transaction Codes

- Introduced new transactions 'Rental Charge' and 'Damage Charge' with action post, adjust minus, adjust plus, bill, and reverse.
- Transaction Codes → Transaction Super Group → Monetary Txns → Rental Charge / Damage Charge → Define 'Access Grid' and Applicable Products.
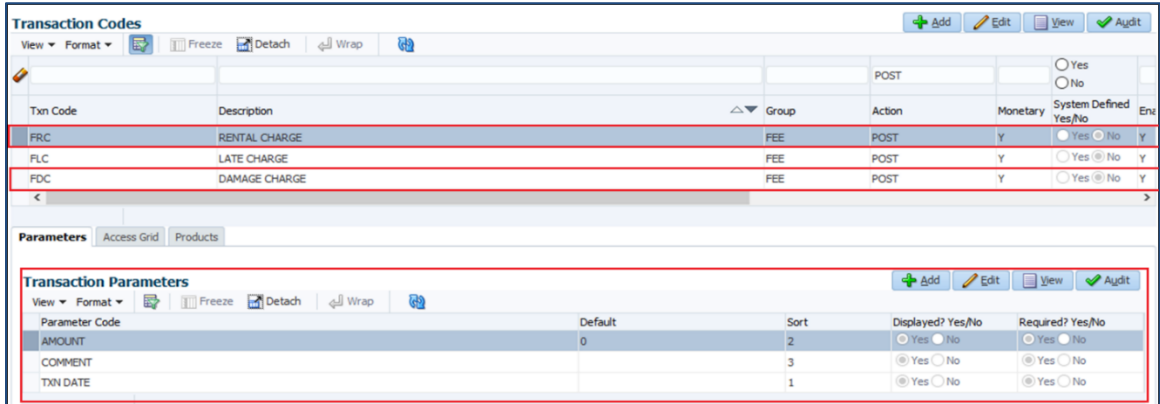
- New Balance 'Fee Usage' and 'Fee Damage' is created for Lease.

Balance	Charge off Method	Write-off Method	Reschedule Method	Billed	Accrued	Non Performing Rollover	Non Performing Balance Type	Enabled
FEE RENTAL FEE DAMAGE	CHGOFF BALANCE	WAIVE	ROLLOVER BALANCE	N	N	N	NONE	Y

- Fee Rental Adjustment – Subtract

Description	Group	Action	Monetary	System Defined	Enable	Txn/Bal Type	Stmt Txn Type	Batch	Manual	Stmt Print	GL
ADJUSTMENT TO FEE RENTAL SUBTRACT ADJUSTMENT TO FEE DAMAGE SUBTRACT	ACCOUNT MONETARY	POST	Y	Y	Y	NONE	NONE	N	Y	Y	Y

- New Monetary transactions to adjust 'Rental Charge / Damage Charge'

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Description	Gro up	Act ion	Mon etar y	System Defined	En abl e	Txn/ Bal Type	Stmt Txn Type	Bat ch	Man ual	Stmt Print	GL
ADJUSTME NT TO FEE RENTAL ADD ADJUSTME NT TO FEE Damage	AC CO UNT MO NET ARY	PO ST	Y	Y	Y	NON E	NON E	N	Y	Y	Y

Transaction Parameters:

Parameter Name	Type	Default Value
Txn Date	Date	Refer Transaction parameter setup
Amount	Number	0
Comments	Varchar	NULL

Setup > Transaction Codes > Rental Edits

- Introduced new edits to validate between the asset type setup vs origination and Rental Agreement tab vs Collateral Tab

Description	Default Value	Value	Validation
RENTAL END DATE IS NOT EQUAL TO RENTAL START DATE FOR HOURLY CYCLE	NA	ERROR	Checks the rental agreement's Rental End date and Rental Start date is equal
MAX USAGE VALUE IS NOT WITH IN THE TOLERANCE	10	ERROR	Checks the Max Usage in the Rental Agreement Tab, which should be either +/- default value with compare to setup value.
SECURITY DEPOSIT NOT WITH IN THE TOLERANCE	100	ERROR	Checks the Security Deposit in the Rental Agreement Tab, which should be either +/- default value with compare to setup value.
DISCOUNT AMOUNT IS NOT WITH IN THE TOLERANCE	10	ERROR	Checks the Discount Amount in the Rental Agreement Tab, which should be either +/- default value with compare to setup value.
DISCOUNT % IS NOT WITH IN THE TOLERANCE	2	ERROR	Checks the Discount % in the Rental Agreement Tab, which should be either +/- default value with compare to setup value.

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Description	Default Value	Value	Validation
CALCULATION METHOD IN ASSET DEFINITION <> CALCULATION METHOD IN COLLATERAL	NA	ERROR	Checks the calculation method in asset type setup and origination collateral equal or not
SECURITY DEPOSIT IN ASSET DEFINITION <> SECURITY DEPOSIT IN COLLATERAL	NA	ERROR	Checks the security deposit in asset type setup and origination > collateral equal or not
DISCOUNT % IN RENTAL AGREEMENT <> DISCOUNT % IN COLLATERAL	NA	ERROR	Checks the discount % in rental agreement tab and collateral tab equal or not
DISCOUNT AMOUNT IN ASSET DEFINITION <> DISCOUNT AMOUNT IN COLLATERAL	NA	ERROR	Checks the discount amount in asset type setup and origination > collateral equal or not
CALCULATION METHOD IN RENTAL DETAILS <> CALCULATION METHOD IN COLLATERAL	NA	ERROR	Checks the calculation method in renal agreement tab and origination > collateral equal or not
MAX USAGE IN RENTAL DETAILS <> MAX USAGE IN COLLATERAL	NA	ERROR	Checks the max usage in renal agreement tab and origination > collateral equal or not
DISCOUNT % IN RENTAL DETAILS <> DISCOUNT % IN COLLATERAL	NA	ERROR	Checks the discount % in renal agreement tab and origination > collateral equal or not
DISCOUNT AMOUNT IN RENTAL DETAILS <> DISCOUNT AMOUNT IN COLLATERAL	NA	ERROR	Checks the discount amount in renal agreement tab and origination > collateral equal or not
FIRST PAYMENT DATE NOT EQUAL TO MATURITY DATE FOR HOURLY	NA	ERROR	Checks the rental agreement's Rental End date and Rental first pmt date is equal or not

2.2.3 Changes in Origination

Origination > Changes in Application Entry

Introduced new 'Rental Agreement' tab next to summary tab

- On saving the application record, system will show a blank record in this tab.
- User can 'Edit', 'View' and Audit'
- This tab will be enabled, if the selected products' agreement type is '**Rental' or** '**Rental_Usage'**.
- New **'Rental Agreement'** section will have the following fields:

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Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Rental Agreement Details				
Existing Customer #	LOV	Y	Null	Shows the list of active Customers
Existing Business #	LOV	Y if application class is 'Small Business'	Null	Shows the list of active Business numbers [this field enabled if Application type is 'Small Business']
Existing Asset #	LOV	Y	Null	Shows the list of asset records form 'Collateral Management' which having Status = New [once the account is funded, change the status to 'Active' and Once account is closed, set the status to 'New'] Collateral Type = Application Collateral Type Lien Status = Undefined
Asset Class	Read only	Y	Null	Based on the collateral type linked to application
Asset Type	Read only	Y	Null	Based on the Asset Class
Sub Type	Read only	Y	Null	Based on Asset Type
Minimum Rental Cycle	LOV	Y	Application Billing Cycle	Lease Billing Cycle CD
Number of Cycles	Integer	Y	0	Any number
Rental Start Dt	Date	Y	Null	If the 'Minimum Rental Cycle' is 'Hourly', shows the Time stamp also.
First Pmt Dt	Date	Y	Null	If the 'Minimum Rental Cycle' is 'Hourly', shows the Time stamp also.
Rental End Dt	Read only	Y	Null	Based on the Rental Start Dt + First Pmt Dt + Billing Cycle If the 'Minimum Rental Cycle' is 'Hourly', shows the Time stamp also.
Rental Options				

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Instrument	Read only if the Application Origination Code is New LOV if AOC is Contract	Y If AOC is Contract	None	Based on the Pricing selected by the system, show the list of Contracts. If the application Stage Code is not 'Contract' shows only 'NONE'
'Load instrument Details'	Button	-	-	Load the instrument details in the contract based on the selected Instrument
Max Usage Allowed	Integer	Y	0	populate the value from Asset Types on save, and allow User to update this filed on edit Disabled for 'Rental' agreement type.
Security Deposit	Number	Y	0.00	populates the value from Asset Types setup on save, and allow User to update this filed on edit
Discount%	Number	Y	0.00	populates the value from Asset Types setup on save, and allow User to update this filed on edit
Discount Amount	Number	Y	0.00	populates the value from Asset Types setup on save, and allow User to update this filed on edit
Rental Amt Per Cycle	Read only	Y	0.00	Populates the field based on the rental charges on click of calculate
Total of Pmts	Read only	Y	0.00	Populates based on the rental charges and agreement duration on click of calculate
Excess Rent Collection Method	Read Only	N	Null	U populates the value from Asset Types setup on save Using Usage Matrix – i.e. excess usage will collect based on the Usage Matrix. Using Rental Charges – i.e. excess usage will collect based on the excess usage.

- On click of 'Initialize', system load the Usage/Rental Details, Usage Charge Matrix, and Rental Charge Matrix details from the Asset Types Setup.
- On click of Calculate, system populates the 'Rental Amount per Cycle' and 'Total Of Payments'.

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- If 'Primary' applicant linked to the application, system shows the same applicant here
- On saving the record, system will consider the Customer and Asset as Primary
  - System populates the Customer details in Applicant tab
  - System populates the Asset, Usage/Rental Details and valuation details in Collateral tab
  - System populates the business details in business tab
- New sub tabs in under this 'Rental Agreement' tab
  - In this tab, system shows the 'Itemization' sub tab, which is same tab available under 'Request' tab
  - 'Usage Charge Matrix' tab with 'Edit and View' field details as follows

Field Name	Data Type	Manda tory	Default Value	Comment
Billing Cycle	LOV	Y	null	Existing LEASE_BILL_CYCLE_CD LOV with new, Daily and Hourly values with sub type as the differentiator
Units From	Integer	Y	null	Any number greater than 0
Charge Per Unit	Numeric	Y	null	Charge per billing cycle during the duration
Charge Type	LOV	Y	null	CHARGE_TYPE_CD
Enabled	Checks Box	Y	N	-

- 'Rental Charge Matrix' tab with 'Edit and View' field details as follows

Field Name	Data Type	Manda tory	Default Value	Comment
Billing Cycle	LOV	Y	null	Existing LEASE_BILL_CYCLE_CD LOV with new, Daily and Hourly values with sub type as the differentiator
Rental Duration From	Integer	Y	null	Any number greater than 0
Charge Per Cycle	Numeric	Y	null	Charge per billing cycle during the duration
Charge Type	LOV	Y	null	CHARGE_TYPE_CD
Enabled	Checks Box	Y	N	-

- On saving the Rental Agreement record system populates the matrix details from the asset types setup as follows:

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Agreement Type	Criteria	Rental Matrix	Usage Matrix	Usage/Rental Details | Criteria [Use Application Billing Cycle]
Usage Rental	Asset Type Asset Sub Type	Base & Excess If Hourly, only Hourly. Any other cycle, don't populate Hourly.	Only Excess Populate only Billing Cycles Records	Populate with same billing cycle record and application Agreement Type
Rental		Base & Excess If Hourly, only Hourly. Any other cycle, don't populate Hourly.	NA	Populate same Billing cycle record and application Agreement Type

Note:

- If user returning the asset after the maturity date, system will also calculate, the excess rent for those many days based on the available excess rental charge matrix and Calc Method.

- Based on the set of durations defined in the 'Rental Charge Matrix', system will convert the Excess into those many durations and then calculate excess rental / usage charges.

  i.e., if user configured only weekly and monthly, and if user used 6 days extra then, charge the excess rent using the 'weekly' rate by converting the 6 days into weeks. (0.86 weeks). System uses the CMN_AMOUNT_ROUND_FACTOR and CMN_AMOUNT_ROUND_METHOD parameters to round / cut / down.

Application Entry → 'Process Application' changes

- On click of Process Application, system will automatically do the select pricing and if there are no 'Error' edits then system will change the application status to 'Approved – Blank'.

- If there are any 'Error' edits, system will keep the application status to 'New –Review Required'.

Origination → Funding → Rental Agreement

During the funding, user can select the instrument from the 'Rental Agreement' tab. Then click of 'Load Instrument', system will populate the contract details to the application.

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Collateral Changes

Changes under 'Collateral Details tab

- Under Collateral Tab > Collateral Details (Origination / Servicing / Collateral Mgmt Tabs)
- 'Elastic Term' field is available only for Servicing → Collateral.
- Changes made at account level are applicable for that account only.
- Min/Max/Rollover/Non-Rollover are with reference to **Usage/Rental Cycle** and not Billing Cycle.
- There changes are applicable for following collateral types:
- Vehicle Collateral
  - ➢ House Hold goods and Other Collateral

Change Details:

Block	New Field Name	Data Type	Mand atory	Default Value	Comment
Usage Receipt	Usage / Rental Details	LOV	Y	Actual	USAGE_FEED_PATTER N_CD
Usage / Rental Details (Cycle)					New block created called 'Usage/ Rental Details (Cycle)
	Usage / Rental Cycle	Read only	-		Leas Billing Cycle
	Min Usage per cycle	Read Only	-		From asset type setup
	Max Usage per cycle	Number	Yes		Does not allow less than 'Min Usage'
	Base Rental Amount	Read Only	-		From Rental Agreement tab
	Security Deposit	Integer	Yes		Any value greater than 0
	Discount %	Number	Yes	0	Should be between 0 to 100
	Discount Amount	Integer	Yes	0	Any value greater than 0
	Usage Rollover/ Advance	Read-only	-	Non-Rollover	From rental agreement tab USAGE_METHOD_CD
	Reset Frequency	Read only	-	0	0
	Advance Reset	Disabled	-	-	-

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Block	New Field Name	Data Type	Mandatory	Default Value	Comment
	Elastic Term Calc Method	LOV	Yes	Avg Usage	ELASTIC_TERM_CAL_METHOD_CD
	Excess Rent Collection Method	LOV Read only from Rental	Yes	Using Usage Matrix	EXCESS_RENT_COL_METHOD_CD
	Calculation Method	LOV	Yes	TIERED	CHARGE_CALC_METHOD_CD

Block	Existing Field Name	Comment
USAGE DETAILS (LIFE)		
Usage Details (Life)		This block was called as 'Usage Details' now renamed as 'Usage Details (Life)
Usage Details (Life)	Charge	This field used to calculate 'EXCESS USAGE FEE' in payoff quote and termination transactions. Hidden from UI. System instead of referring the 'Charge' field, refers 'Usage Charge Matrix' tab under respective collateral.

- Details will be fetched on click of 'Load' button in header block and 'Usage/Rental Charge Matrix will fetch from setup on SAVE.
- On click of 'Load Details' button system populates the details as follows

Agreement Type	Criteria	Rental Matrix	Usage Matrix
Usage	Asset Type Asset Sub Type **Usage Cycle**	NA	Base & Excess records Populate with same **Usage Cycle** records.
Rental	Asset Type Asset Sub Type **Billing Cycle**	Base and Excess If Hourly, only Hourly. Any other cycle, don't populate Hourly.	NA
Usage Rental	Asset Type Asset Sub Type **Billing Cycle**	Base and Excess If Hourly, only Hourly. Any other cycle, don't populate Hourly.	Excess records Populate the same **Billing Cycle** records.

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- New Usage Charge and Rental Charge matrix tabs under Collateral tab with 'Add / Edit / View/ Audit' buttons.

- System will not allowed to save the record with same 'Billing cycle, Units/ Rental Duration From, Charge Type and 'Enabled' fields

- These two tabs having the following fields.

Field Name	Data Type	Mandatory	Default Value	Comment
Billing Cycle	LOV	Y	null	Existing LEASE_BILL_CYCLE_CD LOV with new, Daily and Hourly values with sub type as the differentiator
Units From	Integer	Y	null	Any number greater than 0
Charge Per Unit	Numeric	Y	null	Charge per billing cycle during the duration
Charge Type	LOV	Y	null	CHARGE_TYPE_CD
Enabled	Checks Box	Y	N	-
Rental Duration From	Integer	Y	null	Any number greater than 0

2.2.4 Changes in Servicing

Servicing > Customer Service → Collateral Details Changes

Servicing → Account → Collateral Details along usage/rental details and usage/rental charge matrix carried to servicing.

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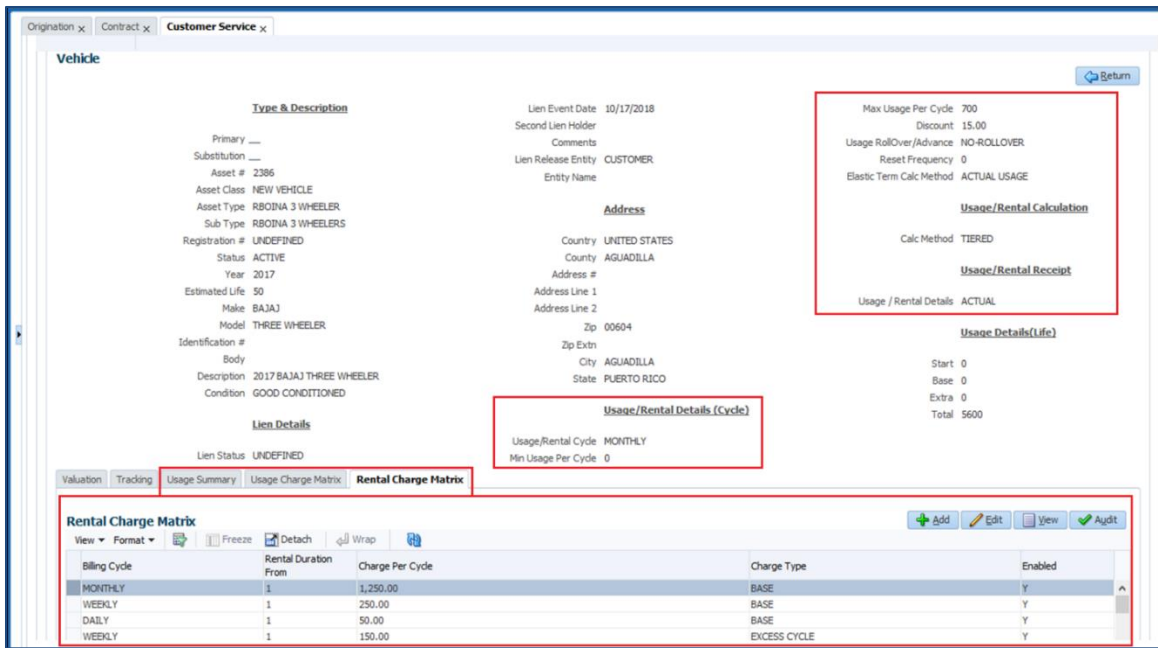
- Provided a new 'Usage Summary Tab for Usage Rental agreement type account to record and shows the actual usage records.
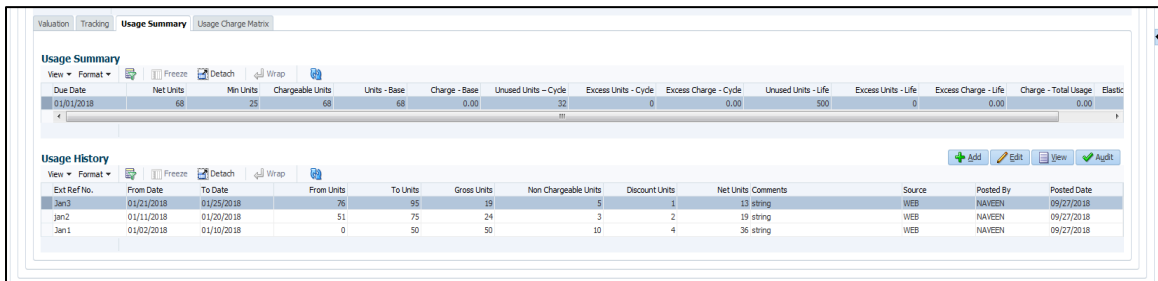
Lease payoff quote changes

User can post the payoff quote during the life of a Rental/Usage Rental.

- In case if user posting the payoff quote before the maturity date, system will assess the early closure charges till the payoff valid up-to date using the available base rental charge matrix.
- In case, if user posting after maturity date, system will assess the Un-billed Rental Charges till the payoff valid up-to date using the available excess rental charge matrix.
- The same case for usage also, system calculates un-processed usage history records and show the amount in Unbilled Usage Charges
- System will show the following new balances types in the transaction result

#	Payoff Quote Balance Type	Value	Reference	Applicable Agreement Type
1	Rental Charge=		Outstanding Balance Amount	Rental and Usage Rental

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#	Payoff Quote Balance Type	Value	Reference	Applicable Agreement Type
2	Damage Charge =		Outstanding Balance Amount	Rental and Usage Rental
3	Fee Excess Usage =		Outstanding Balance Amount	Usage Rental
4	Unbilled Fee Usage =		Calculate the un-processed usage history records and shows the amount	Usage Rental
5	Un-billed Rental Charges=	<Currency Code> <Amount>	Calculate the excess rent from last bill date to the payoff quote valid up to date [if txn date is greater than or equal to the maturity date – system uses excess rental charge matrix details]	Rental and Usage Rental
6	Early Closing Rental Charges=		Calculate the difference b/w actual term rental charges minus account term rental charges [i.e. if user taken for 6 months say 100 per month and terminating after 3rd month say for 3 months 120 per month, shows this value as (120-100) * 3 = 60 [if payoff quote valid up to date is less than or equal to maturity date minus one term]	Rental and Usage Rental

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Lease Termination transaction changes

- In case of Usage Rental, if user want to terminate on a backdated date it is not allowed because, system allows to post the Process Usage Records transaction on the current system date so, user has to post the adjustment transaction and then post the termination transaction.

- Transaction is not allowed to post with buyout indicator 'Y'

- System will access the applicable Un-billed Rental Charges and Early Termination Charges and then post the rental adjustment transactions and then move it to the terminate balances.

Billing Batch Job for accessing the Rental Change

- If the Agreement Type is 'Rental_Usage', system will refer the 'Rental Changes' and access the 'Rental Charge' for that billing cycle duration.

- If the Agreement Type is 'Rental', system will refer the Rental Charge Matrix and access 'Rental Charge'.

- Usage Rental product can also have multiple bills and excess usage will be calculated at each cycle.

- Following illustrate how system will calculate the non-tiered 'Rental' bill

- Following is the Usage and Rental matrix

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Cycle	Base Rental		Discount % per Cycle	Discount Amount per Cycle
	Cycle From	Charge per cycle		
Weekly	1	50	1	10
Weekly	5	10	2	12
Monthly	1	200	4	15
Monthly	5	150	5	18

For Rental Amount, system will calculate the both 'Discount Amount' and 'Discount %' and deduct the minimum of these two values from the rental amount per cycle.

Account Cycle	Account Term	Calculation	
		Rental Amount Per Each Cycle	After Discount
Monthly	3	200	200 minus [Minimum 4 % 200 = 8 or 15] = 192
Monthly	5	150	150 minus [Minimum 5 % 200 = 10 or 18] = 140
Weekly	2	50	50 minus [Minimum of 1% 50=0.5 and 12] = 49.5

Changes under 'Collateral Management – Rental Charge Matrix and Rent History

- Under Collateral (Origination / Servicing / Collection / Collateral Mgmt) > Assets Types > Rental Charge Matrix and Rent History
- System will update the 'Usage /Rental Calculation', 'Usage / Rental Details' from the application.
  - ➢ Once the account gets closed, system will update the values to default and asset status New
- System will copy the Rental Charge Matrix from Application Asset Types. i.e., each time, system will show the latest information of the asset which is rented for.
- New Tab Under Collateral Tab > Rent History
  - ➢ Show All, by default it will be 'N'
  - ➢ Always show the current account which the asset is linked to
  - ➢ On click of this, shows the all accounts order by end date (desc) which are linked previously.
- Placement of these tabs are as shown in the following figure.

Rental History Fields Details:

Field Name	Data Type	Mand atory	Comment
Account#	A/N	Y	Shows the New account number which the asset is linked to.
Agreement Dt	Date	Y	Account Funded Date

Field Name	Data Type	Mand atory	Comment
Agreement Terms	Integer	Y	Number of cycles * minimum rental cycle in days
Termination Dt	Date	Y	Account Close Date
Actual Terms	Integer	Y	Number of days b/w Account Close Date and Funded Date
Usage Start	Number	Y	'Start' value from the application
Usage End	Number	Y	'Current Usage' value from the termination
Excess Usage	Number	Y	Max Usage minus Start usage
Base Amount Charged [not shown in the screen shot]	Number	Y	Minimum Rental Charges
Excess Amount Charged [not shown in the screen shot]	Number	N	'Usage End' minus 'Allowable Usage'
Total Amount Charged	Number	Y	Total of 'Paid / Terminate' amount from all balances after account gets close
Total	Number	Y	Show the sum of 'Total Amount Charged'

2.2.5 Changes in Scenario Analysis

Scenario Analysis Changes:

- Rearranged the Company, Branch, and Product; Introduced Agreement Type, Existing Customer #, Existing Business #, and Existing Asset #. On selection of Product, Agreement Type will be populated.

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- Made First Name, Last Name, Asset Class, Asset Type, Asset Sub Type, and Age as read-only fields.
- On selection of Existing Customer #, First Name and Last Name will be populated.
- On selection of Existing Asset #, Asset Details and 'Usage/Rental Detail' will be populated from the setup.
- If user selects a product which having Agreement Type as 'Rental or 'Usage Rental', then system will shows new fields in the scenario analysis.
- Provided following set of fields under new section 'Collateral Type & Description'
  - Existing Asset #
  - Asset Class
  - Asset Type
  - Sub Type
  - Age
  - Description
- Provided new set of fields under new section 'Usage / Rental Details (Cycle)
  - Usage / Rental Cycle
  - Max Usage Per Cycle
  - Discount %
  - Discount Amount
  - Security Deposit
  - Calc Method
- Shows new three sub tabs Rental Calculator, Rental Charge Matrix, Usage Charge matrix. If the scenario analysis agreement type is Usage Rental
- Shows new two sub tabs Rental Calculator, Rental Charge Matrix If the scenario analysis agreement type is Rental
- After saving the header record, and on click of
  - "Suggest" - system will populate the Pricing and Contract
  - "Calculate" – system populates the rental amount based on the rental matrix.
  - "Create App" – Creates the application with the input values and keep it in New – Blank

  Populate with
  - Customer ID and Details
  - Business ID and details – if exist
  - Collateral id and details
  - Usage/rental details
  - Usage and Rental matrix details
  - Rental Calculator values
- Rental Calculator > "Initialize" – set the
  - Rental calculator values
  - Usage charge matrix details
  - rental charge matrix details
  - Usage/Rental Details with the setup values.
- Scenario analysis > Lease > Initialize: reset following values to default

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- Producer, producer contact, region, territory, term, state, asset number, Asset Type, asset sub type, make, model, pricing, instrument, usage/rental details and Rental Calculator parameters
  - Delete the usage and rental matrix details.
- Make, "Usage\Rental Cycle' as read-only and populate with 'Product Billing Cycle'
  - For Calculation, system uses only, Discount % / Discount Amount.
- New fields boded in Red and boxed in black are change in position and property if the selected product's agreement type is 'Rental or Rental Usage'

2.2.6 Web service changes

2.2.6.1 New web services

New 'Rental Details' get web service.

- Using this service, user can get the Usage/Rental Details, Usage Charge Matrix and Rental Charge Matrix from the third part system.
- **Request Details:**

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- For any request, system will send all the details which matching with the request.
- Either, "Asset Type or Asset Sub Type is required" or "Existing Asset Number" is mandatory to send the response
- Response Details:
  - System send the records matching with 'Agreement Type' and 'Usage Cycle' if there is no data found, system will send an error
  - For Rental Usage – system will send only Excess Records from the usage charge matrix

New 'Create Asset' web service

- Using this service, user can create a Vehicle, Home, and Other asset types in collateral management with 'new' status.
- As part of response, system will respond with asset id and asset number.
- There are set of request elements blocks which is applicable only for either Vehicle/Home/ or other collateral type. User can send those set of applicable elements as part of the request, if not system will show an error.

New 'Rental Application' web service

- Using this service, user can create 'Rental Application' using existing 'Asset Id', 'Customer Id'/ 'Business Number', and 'Rental Details'.
- As part of the response, system will respond back with 'Pre Screening Edits' and 'Application Number'.

2.2.7 Changes in Archive - O and OO table and Purging tables

Defined the additional fields for 'Rental Charge in O and OO tables and purging table

2.2.8 Changes in Conversion

- Customer can convert the 'Rental Charge Matrix', 'Usage Charge Matrix' and 'Usage / Rental Details' from the legacy system.
- System will default the agreement type from the product
- System will also set the rental details in the applications table
- **Changes under 'Collateral Details tab**
  - Under Collateral Tab > Collateral Details
  - These changes are applicable for following collateral types:
    - → Vehicle Collateral
    - → House Hold goods and Other Collateral

Change Details: all are 'Read only' fields

Block	New Field Name	Applicable fro	Mandatory	Default Value	Comment
Usage/ Rental Details (Cycle)					New block created called 'Usage/ Rental Details (Cycle)
	Usage / Rental Cycle	Usage Rental	-		Leas Billing Cycle

Block	New Field Name	Applicable fro	Mandatory	Default Value	Comment
		Usage Rental			
	Min Usage per cycle	Usage	-		From asset type setup
	Max Usage per cycle	Usage Usage Rental	Yes		Should not allow less than 'Min Usage'
	Security Deposit	Rental Usage Rental	Yes		Any value greater than 0
	Discount %	Usage Rental Usage Rental	Yes	0	Should be between 0 to 100
	Discount Amount	Rental Usage Rental	Yes	0	Any value greater than 0
	Usage Rollover/ Advance	Usage Usage Rental	-	Non-Rollover	From rental agreement tab USAGE_METHOD_CD
	Reset Frequency	Usage Usage Rental	-	0	0
	Advance Reset	Usage	-	-	-
	Elastic Term Calc Method	Usage Usage Rental	Yes	Avg Usage	ELASTIC_TERM_CAL_METHOD_CD
	Excess Rent Collection Method	Rental Usage Rental	Yes	Using Usage Matrix	EXCESS_RENT_COL_METHOD_CD
	Calculation Method	Usage Rental Usage Rental	Yes	TIERED	CHARGE_CALC_METHOD_CD

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Block	New Field Name	Applicable fro	Mandatory	Default Value	Comment
Usage Receipt	Usage / Rental Details	Usage Usage Rental	Y	Actual	USAGE_FEED_PATTERN_CD

Block	Existing Field Name	Comment
USAGE DETAILS (LIFE)		
Usage Details (Life)		This block was called as 'Usage Details' now renamed to 'Usage Details (Life)
	Charge	This field used to calculate 'EXCESS USAGE FEE' in payoff quote and termination transactions. Hided this field from UI. System instead of referring the 'Charge' field, it will refer 'Usage Charge Matrix' tab under respective collateral.

For Rental/Usage Rental / Usage

This tab will be enabled for Usage or Usage Rental

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This tab will be enabled for Rental or Usage Rental

- New Usage Charge and Rental Charge matrix tabs under Collateral tab with 'Edit / View/ Audit' buttons.

- System will not allowed to save the record with same 'Billing cycle, Units/ Rental Duration From, Charge Type and 'Enabled' fields

- These two tabs having the following fields.

Field Name	Applicable for	Data Type	Mandatory	Default Value	Comment
Billing Cycle	both	LOV	Y	null	Existing LEASE_BILL_CYCLE_CD LOV with new, Daily and Hourly values with sub type as the differentiator
Units From	Usage	Integer	Y	null	Any number greater than 0
Charge Per Unit	Usage	Numeric	Y	null	Charge per billing cycle during the duration
Charge Type	both	LOV	Y	null	CHARGE_TYPE_CD

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Field Name	Applicable for	Data Type	Mandatory	Default Value	Comment
Enabled	both	Checks Box	Y	N	-
Rental Duration From	Rental	Integer	Y	null	Any number greater than 0
Charge Per Cycle	Rental	Number	Y	Null	Ay number greater than 0

Usage Summary is enabled for usage and usage rental

- Under Collateral Tab > Usage History
- Placement of this tab is as shown in the following figure.

Usage Summary – Field Details – Read only block

Field Name	Data Type	Mandatory	Default Value	Comment
Due Date	Date	Yes	Billing cycle run date	Read only field. System generated
Net Units	Varchar	Yes	0	Refer calculated net units
Min Units	Number	Yes	0	Refer from Collateral → Header Block
Chargeable Units	Number	Yes	0	Net Units or Min Units whichever is higher
Units – Base	Number	Yes	0	Base units consider for charge using base charge
Charge - Base	Number	Yes	0	Charge used for base units
Unused units - Cycle	Number	Yes	0	Unused units used for cycle units
Excess Units – Cycle	Number	Yes	0	Cycle excess units consider for charge using cycle charge
Excess Charge – Cycle	Number	Yes	0	Cycle excess charge consider for charge using cycle charge
Unused units - Life	Number	Yes	0	Unused units used for life units
Excess Units – Life	Number	Yes	0	Life excess units consider for charge using life charge
Excess Charge – Life	Number	Yes	0	Life excess charge consider for charge using life charge

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Field Name	Data Type	Mandatory	Default Value	Comment
Charge – Total Usage	Number	Yes	0	Total Usage total charge – consider for charge using total usage charge
Elastic Usage Term	Number	Yes	0	Term elastic usage consider for charge using term charge

Assumptions:

- Financial institution will agree to supply the 'Non-Chargeable Units' or agree to provide 'Discount %' on usage units.

  Ex: In case of Printer lease

  Non Chargeable Units are number of sample /test prints taken which will not be billed.

  Discount units are the number of units that FI and Customer has agreed for discount/rebate.

- Changes under Contract

  ➤ New header and filed added to show the 'Agreement Type'

  ➤ Show the time stamp for Contract date and Maturity Date if the agreement type is Rental / Usage Rental and billing cycle is Hourly.

2.2.9 Seed Data

Refer 'Appendix: Seed Data' chapter.

2.3   Ever Green Lease Transaction

2.3.1   Overview

Ever Green lease is a typical leasing product offered by the equipment leasing companies where in lessee can continue to use the equipment post the expiry of existing contract without getting into fresh contracting. In this case, rental can be same as existing or discounted from the existing rental. With this feature OFSLL will support this important business requirement of equipment leasing industry.

- New 'Ever Green Lease' transaction.
- Following are the transaction parameters.
  - ➢ EXTENSION DATE
  - ➢ EXTENSION TERM
  - ➢ PAYMENT AMOUNT
  - ➢ COMMENT
- Lease account term will be extended as per the inputting "Term" and billing will consider "Payment Amount" for extended term.
- By default "Rate" and "Residual %" are considered as "Zero".
- This transaction can be posted 'Before/On/After' account maturity date.
- Existing Balances are Adjusted Minus or payment is received from the customer to make all balances to Zero.
- New 'Lease Receivable' balance is Adjusted Plus by multiplying the 'EXTENSION TERM and PAYMENT AMOUNT' provided in the transaction parameters.
- Customer will be billed for the agreed payment amount until the Lease Maturity date.
- Current Balance will be updated based on the Billing.

  Example:
  - ➢ Lease Payment Amount is $5.
  - ➢ Ever Green Lease term is 36

Cycle #	Lease Receivable without Payment	Lease Receivable with Monthly Payment	Term	Remaining Term
0	0	0	0	36
1	5	5	1	35
2	10	5	2	34
3	15	5	3	33
N	N*Lease Payment Amount	Lease Payment Amount	4	32

- Late fee and all other transactions functionalities will be as usual after posting this transaction.
- Lease Payoff and Lease termination functionalities are as usual.
- Reversal of this transaction is allowed.
- Note: Backdated is not allowed for this transaction.

Validations:

- This transaction will be supported only for INTEREST RATE leases.

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Account Condition:

- On posting "EVER GREEN LEASE" transaction, an Account Condition is posted as "EVEN GREEN LEASE".
- These transactions access is provided in Seed Data for this "EVER GREEN LEASE" transaction.
- This account condition is available as a Queue Parameter and is displayed in "Customer Service > Summary > Conditions".
- On reversal of the transaction, this account condition is removed.

2.3.2 Transactions List

- Below is the list of transactions which are restricted to Post after posting 'Ever Green Lease' transaction.
  - LS_CHANGE_TERM
  - LS_EXTENSION
  - LS_CHANGE_PMT_AMT
  - BUS_CRLMT_MAINT
  - CUST_ON_MLTRY_DUTY
  - CUS_CRLMT_MAINT
  - RESCHEDULE_INDEX
  - RATE_CHANGE
- Impacted Areas:

Following screens fields are updated after posting 'Lease Change Term' transaction.

- 'Results' section in "Customer Service > Maintenance > Transaction Batch Information" is updated with Existing and New 'Payment Amount, Maturity Date, Term and Residual% ' as shown in below figure.

Details' column in 'Customer Service > Transaction History > Transactions' is updated with new 'EXT TERM' as shown in below figure.

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Servicing > Scenario Analysis' screen details are updated.

'Delq Due', ' LC Due', 'NSF Due', 'Other Due', 'Total Due', 'Total Due(Incl Current due)', 'Todays Payoff' , ' Future Payoff', 'Future Payoff Date', 'Future Pmt Dt', 'Oldest Due Dt', 'Paid Term' and 'Remaining Term' fields are updated in 'Summary > Account Details > Dues'. [Amount fields to Zero, Other fields are updated accordingly].

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Summary > Account Details > 'Dues' and 'Delinquency Information' are updated. [Amount fields to Zero, Other fields need to be updated accordingly].

'Adjusted Cap Cost', 'Term', 'Rate' and 'Maturity Dt' fields are updated in 'Summary > Account Details > Account Information'.

'Rent Charge', 'Total Term', 'Paid Term' and 'Maturity Dt' fields are updated in 'Account Details > Account Details > Additional Details'. [Amount fields to Zero, Other fields are updated accordingly].

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System will update the existing 'Repayment Schedule'.

"EVER GREEN LEASE" condition along with "Condition Start Dt" and "Followup Dt" [Same as Transaction Date"] is displayed in "Customer Service > Summary > Conditions". All other existing conditions are removed.

'Days Past Due', 'Pay Off Amt', 'Amount Due', ' Status' and 'Oldest Due Dt' field values in Header block are updated.[Amount fields to Zero, Other fields are updated accordingly].

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Unpaid Dues (Before Posting Txn) in "Transaction History > Due Date History" are paid and no records will be there.

2.3.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.4   Lease Enhancements

2.4.1   Lease Calculator Changes

Lease quick calculator option is introduced that will enable user to quickly do actions like Calculate Payment, Residual Percentage and Gross Capital Cost. This feature will reduce the step of user going to Tools Calculator and perform the above mentioned actions.

Options for Rent Factor:

- Application Entry- Calculate Payment, Calculate Gross Cap Cost
- Decision- Calculate Payment, Calculate Residual %, Calculate Gross Cap Cost
- Funding- Calculate Payment, Calculate Residual %, Calculate Gross Cap Cost

Options for Interest Rate:

- Interest Rate - Calculate Payment, Calculate Int Rate, Calculate Term, Calculate Lease Amt. (Application Entry, Decision and Funding)
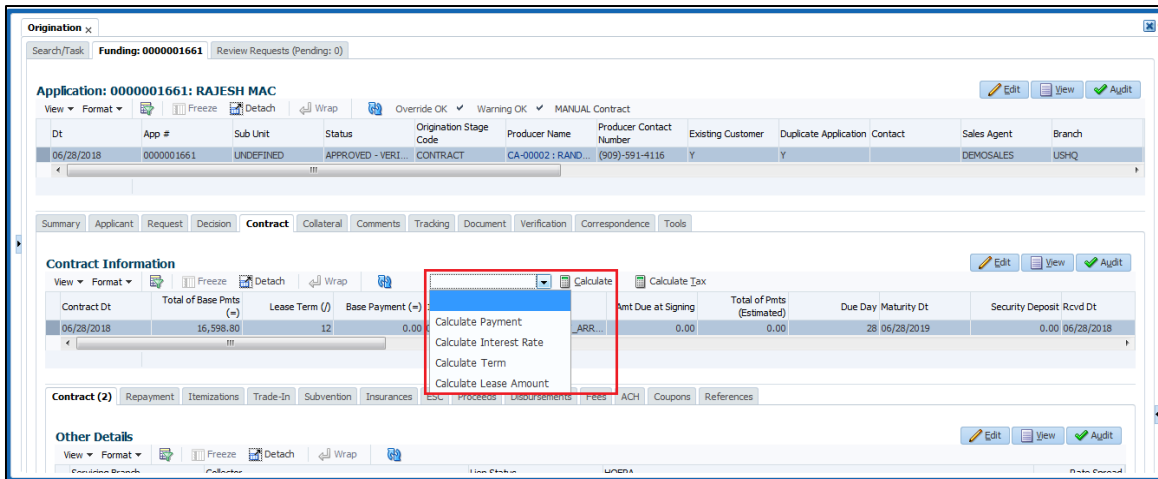
2.4.2   Lease Super Summary & Widget Changes

Super Summary Changes:

Following changes are taken up in Super Summary screen

	Existing Label	New Label
Requested	Cap Cost	Gross Cap Cost
Decision	Capitalized Cost	Gross Cap Cost
Employment		Shows 'Pay Day' field

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Super Widget Changes:

Following changes are taken up in Super Widget screens

	Existing Label	**New Label**
Requested	Capitalized Cost	Gross Cap Cost Shows 'Adjusted Cap Cost'
Approved	Gross Capitalized Cost	Gross Cap Cost Shows 'Adjusted Cap Cost'
Collateral		Shows 'Estimated Life'

2.4.3 Lease SCRA Enhancement

As per the SCRA Lease Regulatory Enhancement Customer consent to Terminate Contract need to be captured.

- Capture Customer request for 'Termination' during SCRA
- Currently, if the borrower is on military duty, system will post multiple conditions on account including 'DO NOT TERMINATE'.

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- Termination transaction is restricted to post, if the condition is posted on account.

Change Details:

- OFSLL now supports new non-monetary transaction 'Allow To Terminate'.
- This transaction is applicable for calculation method = Interest Rate and Rent Factor Method

Actions/ Validations:

- If the 'DO NOT TERMINATE' condition is posted on account, system closed the 'DO NOT TERMINATE' condition on account.
- If the 'DO NOT TERMINATE' condition is **NOT** posted on account, system doesn't post transaction and show error message 'DO NOT TERMINATE condition is not open on account'.

2.4.4 <u>Seed Data</u>

Refer '<u>Appendix: Seed Data</u>' chapter.

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2.5   Lease Change Term Transaction

2.5.1   Overview

- New 'Lease Change Term' transaction for changing the term of the lease.
- Lease term either be increased or decreased.
- Maturity date will be updated.
- New Terms will be calculated between 'Due Dt Next' and 'New Maturity Dt'.
- Reversal of this 'Lease Change Term' transaction is allowed.
- Note: Posting this transaction will not impact delinquency status of the account.
- Backdated is allowed for this transaction. [So that all transactions will be reversed and reposted].
- For Backdated transaction delinquency will be impacted.
- Note: Backdated is not allowed beyond first billing date.
- Following are transaction parameters.
  - ➢ TXN DATE
  - ➢ PAYMENT AMOUNT
  - ➢ RESIDUAL PERCENTAGE REMAINING

Validations:

- This transaction will be supported only for INTEREST RATE leases.
- In 'Lease Change Term' transaction provided 'TERM' should not be more than asset Estimated Life.

Message:" Extension requested is beyond available Life of Asset" message will be displayed.

- Scenario Analysis Use Case:
  - ➢ Through 'Servicing > Scenario Analysis' screen also account 'Term' can be changed.
  - ➢ User can calculate 'PAYMENT AMOUNT' by inputting 'TERM', 'RESIDUAL%' and 'BALLOON AMT' and can post to account.

2.5.2   Impacted Areas

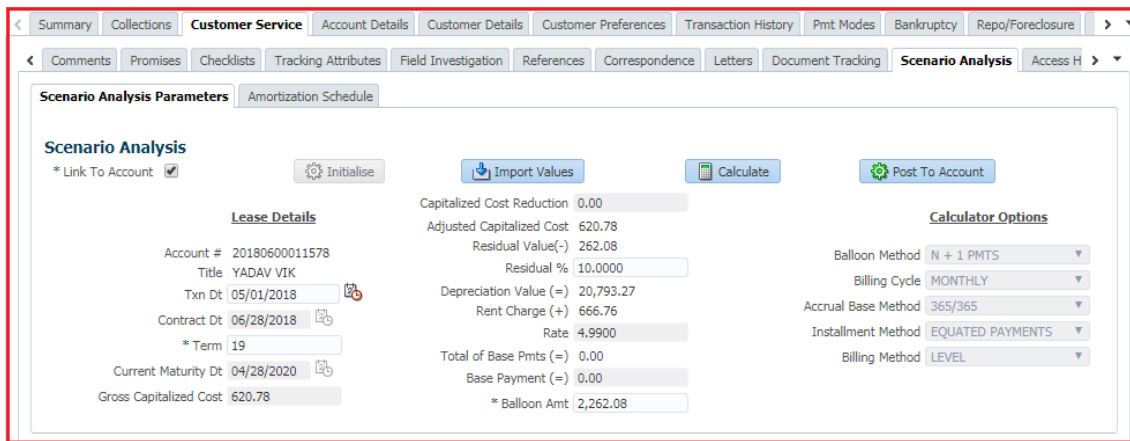Following screens are updated after posting 'Lease Change Term' transaction.

- 'Results' section in "Customer Service > Maintenance > Transaction Batch Information" will be updated with new calculated term as 'NEW TERM' as shown in below figure.
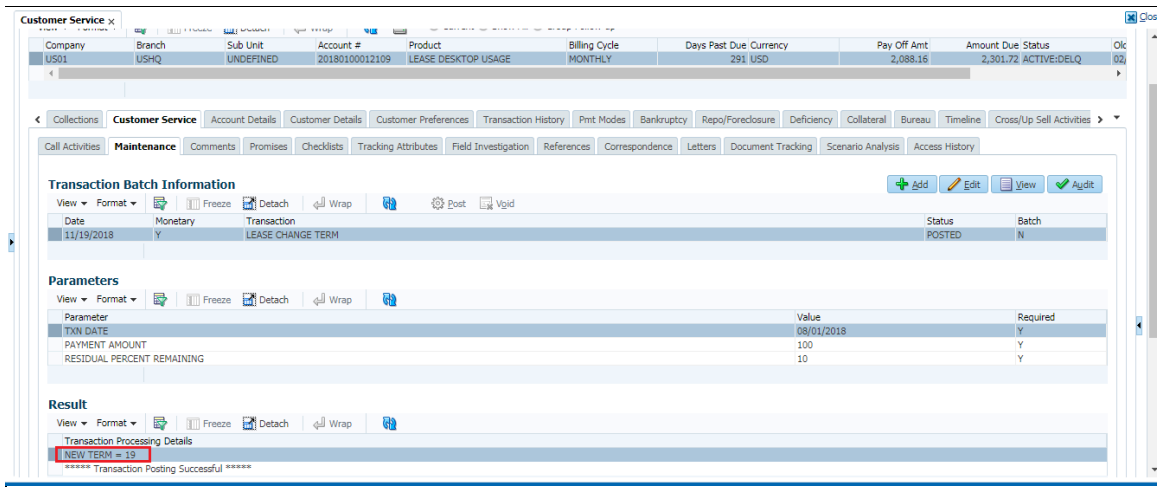
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- 'Details' column in 'Customer Service > Transaction History > Transactions' will be updated with new calculated term as 'TERM' as shown in below figure.
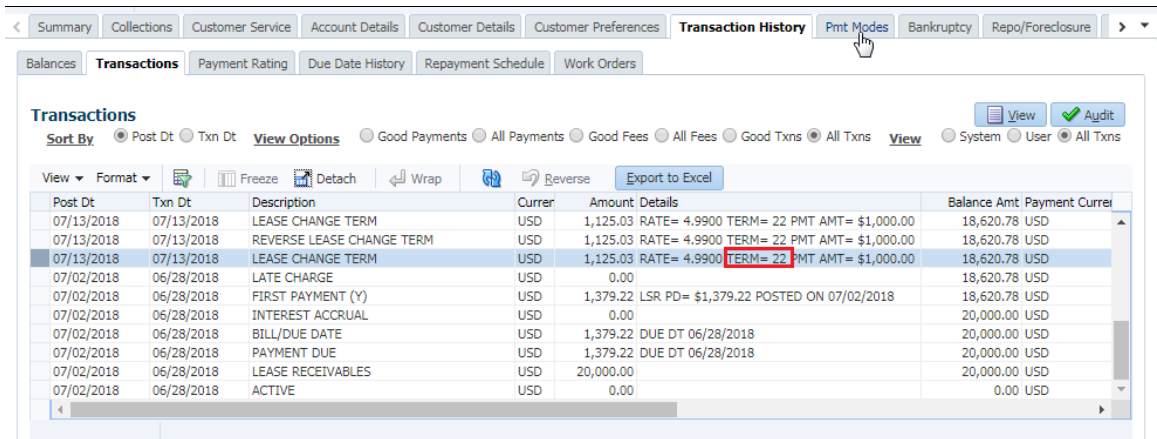
- 'Customer Service > Customer Service > Scenario Analysis' screen details will be updated.

- 'Remaining Term', 'Paid Term' and 'Amt Paid Excess' field will be updated in 'Summary > Account Details > Dues'.

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- Term' and 'Maturity Dt' fields will be updated in 'Summary > Account Details > Account Information'.

- 'Depreciation Value', 'Residual Value', 'Residual %', 'Rent Charge', 'Billed Term', 'Total Term', 'Paid Term' and 'Maturity Dt' fields will be updated in 'Account Details > Account Details > Additional Details'.

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Account Information

Interest and Accruals

Accrual Start Dt 06/28/2018
Last Accrual Dt 06/28/2018
Stop Accrual ____
Accrual Method INTEREST BEARING
Base Method 365/365
Accrued Interest 12.31
Index Type FLAT RATE
Index Rate 0.00
Margin Rate 4.99
Rate 4.99
Depreciation Value 20,793.27
Residual Value 262.08
Residual % 10.00
Rent Charge 666.76
Balloon Amt 2,262.08
Auto Include Residual Value ____
Residual Valuation

Rate Change Details

Rate Start of the Year 4.99
Last Rate Adj Dt
# of Rate Adjs (Year) 0
# of Rate Adjs (Life) 0
Reschedule Method UNDEFINED
Reschedule Value 0.00

Extn and Due Dates

# of Extensions (Life) 1
# of Extension Term (Life) 2
# of Due Day changes(Year) 0
# of Due Day changes(Life) 0
Last Extn Dt 09/24/2018
Due Day Change Dt

Early Termination

Allowed To Terminate ✔
Billed Term 0
Lease Amt Recovered % 0

Additional Details

Total Term 23
Paid Term 1
Maturity Dt 04/28/2020
Security Deposit 0.00

Recourse Details

Recourse ____
Recourse Type
Recourse Reason
Max Recourse % 0.00
Recourse Amt 0.00

Cure Letter

Start Date
Expiry Date

Others

Stmt Preference Mode PHYSICAL
Time Zone AMERICA/NEW_YORK

Time Bar Details

Start Date
End Date
Days to Time Bar

Settlement Information

Effective Dt
Good Through Dt
Agreed Amt
Paid Till Dt

Usage/Rental Details

Agreement Type UNDEFINED

- System will update the existing 'Repayment Schedule'.

2.5.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.6 Enhancement of 'Lease Extension' Transaction

2.6.1 Overview

- Enhanced the existing 'Lease Extension' monetary transaction to extend the TERM even before the maturity date.
- Ability to extend life of lease even before maturity date.
- Enhanced the existing 'Lease Extension' monetary transaction to extend the TERM even before the maturity date.
- New Terms will be calculated between 'Due Dt Next' and 'New Maturity Dt'
- System will automatically identify if 'Txn Dt' is Less/Greater or Equal to current maturity date and process accordingly.
- If 'Txn Dt' is Less than Maturity date then system processes like TERM extension before maturity date.
  - ➢ A comment will be posted as" Term extended before maturity date".
- If 'Txn Dt' is Greater than or Equal to Maturity date then system processes like TERM extension after maturity date.
  - ➢ A comment will be posted as" Term extended after maturity date".
- Reversal of this transaction is allowed.
- Posting this transaction will not impact delinquency status of the account.
- Back dated is allowed for this transaction. (So that all transactions will be reversed and reposted.)
- For back dated transaction delinquency will be impacted.
- Backdated is not allowed beyond first billing date.

Validations:

- This transaction will be supported only for INTEREST RATE leases.
- In 'Lease Extension' transaction provided 'TERM' should not be more than asset Estimated Life.

  Message:" Extension requested is beyond available Life of Asset" message will be displayed.

2.6.2 Impacted Screens

- 'Results' section in "Customer Service > Maintenance > Transaction Batch Information" will be updated with existing and new 'Maturity Date, Term and Base Payment' as shown in below figure.

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- 'Details' column in 'Customer Service > Transaction History > Transactions' will be updated with new calculated term as 'TERM' as shown in below figure.

- 'Servicing > Scenario Analysis' screen details will be updated.

- 'Remaining Term', 'Paid Term' and 'Amt Paid Excess' field will be updated in 'Summary > Account Details > Dues'.

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- 'Term' and 'Maturity Dt' fields will be updated in 'Summary > Account Details > Account Information'.

- 'Depreciation Value', 'Residual Value', 'Residual %', 'Rent Charge', 'Billed Term', 'Total Term', 'Paid Term' and 'Maturity Dt' fields will be updated in 'Account Details > Account Details > Additional Details'.

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Account Details | Statements | Rate Schedule | Insurances | Condition Details | Securitization | Contract Information | Tax Details

Account Information

View ▾ Format ▾ | Freeze | Detach | Wrap

Security Deposit	Depreciation Value	Residual Value	Rent Charge	Maturity Dt	Accrual Start Dt	Last Accrual Dt	Stop Accrual	Accrual Method	Base Method	Rebate Method
0.00	20,793.27	262.08	666.76	04/28/2020	06/28/2018	06/28/2018	N	INTEREST BEARING	365/365	NONE

Account Information

Return

Interest and Accruals

Accrual Start Dt 06/28/2018
Last Accrual Dt 06/28/2018
Stop Accrual ___
Accrual Method INTEREST BEARING
Base Method 365/365
Accrued Interest 12.31
Index Type FLAT RATE
Index Rate 0.00
Margin Rate 4.99
Rate 4.99
Depreciation Value 20,793.27
Residual Value 262.08
Residual % 10.00
Rent Charge 666.76
Balloon Amt 2,262.08
Auto Include Residual Value ___
Residual Valuation

Extn and Due Dates

# of Extensions (Life) 1
# of Extension Term (Life) 2
# of Due Day changes(Year) 0
# of Due Day changes(Life) 0
Last Extn Dt 09/24/2018
Due Day Change Dt

Early Termination

Allowed To Terminate ✔
Billed Term 0
Lease Amt Recovered % 0

Additional Details

Total Term 23
Paid Term 1
Maturity Dt 04/28/2020
Security Deposit 0.00

Cure Letter

Start Date
Expiry Date

Others

Stmt Preference Mode PHYSICAL
Time Zone AMERICA/NEW_YORK

Time Bar Details

Start Date
End Date
Days to Time Bar

Settlement Information

Effective Dt
Good Through Dt

- System will update the existing 'Repayment Schedule'

Balances | Transactions | Payment Rating | Due Date History | **Repayment Schedule** | Work Orders

Repayment Schedule

View ▾ Format ▾ | Freeze | Detach | Wrap

Seq	Date	# of Pmts	Pmt Amt	Generated
1	06/28/2018	1	1,379.22	Y
2	07/28/2018	2	1,000.00	Y
3	09/28/2018	20	123.75	Y

2.6.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.7 <u>Securitization – Remove Account before SOLD</u>

2.7.1 <u>Overview</u>

Servicing > Securitization > Pool Inquiry > Pool Transaction:

- Provision to remove an account from the list of accounts when Pool status is 'New' or 'Open'.
- In the 'Pools > Pool Transaction > Transaction LOV' a new LOV option 'Remove Account' is added.
- The following 'Account' LOV field, fetches those accounts which part of that specific pool, select the account and click on 'Post' for removing the account.
- Account Removal Transaction is allowed only for Pool statuses 'New' and 'Open'.
- If User tries to post 'Remove Account' transaction for other Pool statuses, then system throws an error message as "Pool not in New or Open status. Cannot remove account".
- Once the account is removed from the pool, the removed account is available for pooling into another pool.
- A removed account can be added again in the same pool.
- There will be no impact on the pool status once an account is removed.
- There will also be no impact on the pool status even if 'last of the accounts' in a pool is removed.
- Removal of an account from a pool which doesn't have any accounts will not be possible as system will not show any accounts in the LOV.
- Account removal will have impact on the subsequent tabs:
  - Pool Accounts (Removed account should not be seen this this tab)
  - Products (Current Balance)
  - Status (Current Balance)
  - Rate (Current Balance)
  - Delinquency (Current Balance)
  - Term (Current Balance)
- This transaction is applicable for LOAN and LEASE products.

Field Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Transaction (To Existing LOV – New Value 'Remove Account')	LOV	Yes , If the user want to remove an individual account from the pool	NA	NA

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Servicing > Securitization > Pool Inquiry > Pool Transaction Screen:

2.7.2 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.8 Securitization – Create Copy Feature

2.8.1 Overview

Servicing > Securitization > Pool Creation:

- "Create Copy" feature provided for creating new pools in the "Securitization > Pool Creation" screen.
- "Create Copy" feature is provided for copying the specific pool parameters to replicate a new pool with new pool name.
- A "New Pool" label, Text Box and "Create Copy" button are provided in Servicing > Securitization > Pool Creation > Personalization Options.
- Text Box is for entering the new pool name.
- "Create Copy" button is access controlled, all servicing users have access for this button. For other users it is not shown.
- On click of "Create Copy" button will copy "Pool Queries" and "Account Selection Criteria" with new pool name.
- New pool status will be "New".
- Applicable for Loan and Lease products.
- "Pool Queries > Query Name" will be "Pool Name concatenated with Random number".

    Note: System will just create the copy of the pool, it will not create the pool.

Servicing > Securitization > Pool Creation Screen:

2.8.2 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.9   Securitization – Super Pool Details

2.9.1   Overview

Customer Service > Account Details > Securitization:

- 'Super Pool Id' and 'Pool Id or Regular Pool Id' details are provided in "Customer Servicing > Account Details > Securitization".
- Added new display field, 'Super Pool Id' as first field for displaying 'Super Pool Id'.
- If the 'Super Pool Id' is not configured for the pool, then it will be shown as "Undefined".
  Note: Based on the 'Class', SOLD status pool 'Description' is shown as LOV options for 'Super Pool' field.
- When a pool is 'SOLD' then only a record is shown in the 'Customer Service > Account Details > Securitization', else for all other statuses it is shown as "Undefined".
- So currently if a 'Pool Id or Regular Pool Id' is configured to 'Super Pool' then that 'Super Pool' is shown in the 'Customer Service > Account Details > Securitization'.
- 'Super Pool Id' is included in Conversion Accounts as well, as part of conversion process super pool is send, same will be displayed at the 'Customer Service > Account Details > Securitization'.

Customer Service > Account Details > Securitization Screen:

2.9.2   Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.10 <u>Collateral Depreciation</u>

2.10.1 <u>Overview</u>

- This feature will depreciate the collateral when linked to a Lease and pass the relevant Depreciation entries.
- Support below two depreciation methods.
  - ➤ Life Based
  - ➤ Flat Rate

  Note: Assets in NON ACTIVE STATUS need to be depreciated outside of OFSLL [NOT DEFINED, IN INVENTORY, INACTIVE, SOLD, RELEASED, NEW and SUBSTITUTED].

- Assets in ACTIVE Status will only be depreciated in OFSLL.
- OFSLL enhanced to support Asset depreciation associated with account. Below are the high-level impacted areas.
- Setup
  - ➤ Lease Contract Setup
  - ➤ Batch Job to Calculate Depreciation
- Origination
  - ➤ Contract
  - ➤ Edits
- Customer Service
  - ➤ Contract
  - ➤ GL Entries
  - ➤ Transaction to post Depreciation on to the Account
- Tools
  - ➤ Deprecation Calculator

2.10.2 <u>Setup Changes</u>

- A new 'Depreciation' header is provided in "Setup > Contract > Lease".
- Existing "Depreciation Method" and "Depreciation Convention" are provided under this new "Depreciation" header.
- By default "Depreciation Method" is 'Undefined' [No depreciation applicable]. Once updated to different value, system will allow to select Depreciation Convention.
- Based on the depreciation method selected, below actions are done.

Field Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Depreciation Method [DEPRECIATION_METHOD_CD]	LOV	Yes	UNDEFINED	Select Depreciation Method
Depreciation Convention [FIRST_LAST_YEAR_CONVENTION_CD]	LOV	Yes	MONTHLY	Select Depreciation Convention Type

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Life Based:

If depreciation method is "Life Based" a new "Depreciation Rate Schedule" tab will be displayed to define depreciation rate slabs. All the fields are mandatory.

Field Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Period	Text	Yes	0	Used to determine the cycle period of depreciation convention
Duration	Text	Yes	0	Tenure of frequency defined
Depreciation %	Text	Yes	0.00	Percentage of depreciation for Tenure defined
Enabled	Check Box	Yes	N	Enabled Indicator

Flat Rate:

If depreciation method is "Flat Rate" following four new fields will be rendered. All the fields are mandatory.

- ➢ Base Rate
- ➢ Adjusting Rate
- ➢ Bonus Rate
- ➢ Depreciation Rate

Field Details:

Field Name	Type	Mand atory	Default Value	Values in LOV / Comments
Base Rate	Text	Yes	0	Estimated base depreciation rate
Adjusting Rate	Text	Yes	0	Rate at which base rate should be increased
Bonus Rate	Text	Yes	0	Bonus Depreciation is a tax incentive that allows a business to immediately deduct a large percentage of the purchase price of eligible business assets. Bonus Rate is used to derive Bonus Depreciation
Depreciation Rate	Displ ay	Yes	0	Eligible Rate Flat Rate: Depreciation Rate% = (Base Rate x (1 + Adjusting Rate/100)) + Bonus Rate

2.10.3 Origination Changes

- On loading Setup Contract, depreciation details will be populated from setup into Application Contract fields.
- Facility provided to enter Start Date of depreciation. System will use this date to start accounting depreciation till the time asset is associated with this Account.
- The default value for 'Depreciation Start Date' is the 'Contract Date'.
- This 'Depreciation Start Date' should not be less than 'Contract Date' and should not be greater than account 'Maturity Date'.
- Following is the message for the above validation.

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- > Message: "'Depreciation Start Date' should not be less than 'Contract Date' and should not be greater than account 'Maturity Date'."
- Existing "Depreciation Method" text field is converted into dropdown and populated based on Lease Contract Setup.
- Existing label "First Last Year Conv" is renamed into "Depreciation Convention". This text field is converted into dropdown and populated based on Setup.
- All depreciation fields are enabled/disabled based on the "Depreciation Method" and are editable in Origination.
- Origination Depreciation values will be considered.
  - > For "Life Based" depreciation method, "Depreciation Rate Schedule" values will be applicable from Setup.
  - > For "Flat Rate" depreciation method, depreciation field values will be propagated from Setup.
- When "Life Based or Flat Rate" depreciation method is selected, then "Depreciation Value" should match to the "Tools > Depreciation Calculator > Depreciation Value".

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Contact Edits [Warning]:

- Depreciation value does not match configured estimated depreciation value.

Validation:

- Depreciation Charges are not defined for Contract Term.

2.10.4 Customer Service Changes

- Depreciation fields defined in Origination will be propagated to "Customer Service > Account Details > Contract Information". Based on "Depreciate" method, below fields are displayed.

2.10.5 Depreciation Calculator

- A new menu link "Depreciation Calculator" added to calculate depreciation under "Tools".
- For Life Based, "Depreciation Rate Schedule" sub tab will be populated. Depreciation charges details are explained below.

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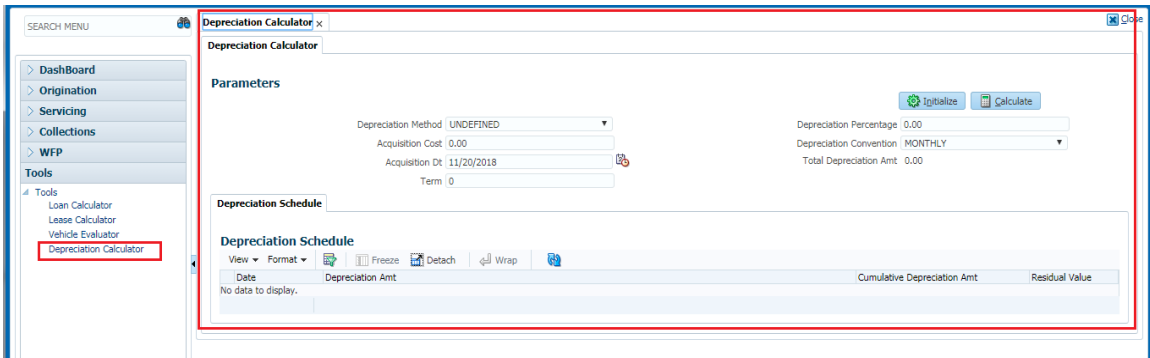
- Only one type of "Depreciation Convention" will be considered for calculation.

- If the 'Term' provided is greater than the "Term where Residual Value is becoming Zero", then system shows the schedule till where the Residual Value becomes zero.

Depreciation Calculator Field Details:

Field Name	Type	Mand atory	Default Value	Values in LOV / Comments
Depreciation Method [DEPRECIATION_M ETHOD_CD]	LOV	No	NA	Used to indicate depreciation calculation methods
Acquisition Cost	Text	No	0	Asset Acquisition Cost
Depreciation Start Dt	Text with Calendar	No	NA	Depreciation Start Date
Term	Text	No	0	Total depreciation simulation term
Depreciation Percentage	Text	No	0	Depreciation Percentage for the simulation. This will be read-only for LIFE BASED method.
Depreciation Convention [FIRST_LAST_YEAR _CONVENTION_CD]	LOV	No	NA	The Frequency at which Account should be updated with depreciation details
Total Depreciation Amt	Display	No	0	Total Depreciation Amount for the simulation

Depreciation Schedule Field Details:

Field Name	Type	Mand atory	Default Value	Values in LOV / Comments
Date	Date	NA	NA	Depreciation date for the selected cycle
Depreciation Amt	Number	NA	NA	Calculated Depreciation Amount for the cycle
Cumulative Depreciation Amt	Number	NA	NA	Calculated Depreciation Amount till date

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Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Residual Value	Number	NA	NA	Residual for the corresponding cycle Formula: Acquisition Cost - Cumulative Depreciation Amt

Depreciation Calculator for Flat Rate:

Depreciation Rate Schedule Field Details:

Field Name	Type	Mandatory	Default Value	Values in LOV / Comments
Period	Text	Yes	NA	Depreciation date for the selected cycle
Duration	Text	Yes	NA	Calculated Depreciation Amount for the cycle
Depreciation %	Text	Yes	NA	Calculated Depreciation Amount till date

Depreciation Calculator for Life Based Screen:

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Validation:

- For "Life Based" Depreciation method, "Depreciation Calculator > Parameters > Depreciation Percentage" field is disabled.
- Provided total "Depreciation Rate Schedule > Duration" should be less or equal to the "Depreciation Calculator >Term".
- Error message will be shown when Term is more "Term is more than as maintained for depreciation rate schedule".

2.10.6 Depreciation Batch Job

- A new depreciation batch job 'DEPRECIATION RATE PROCESSING' is provided in 'SET-TAM' batch job set to record the new Delta depreciation value [with current indicator as Y] on the asset.

    - **Example**: Batch Job frequency is set to 'Monthly' and every month asset depreciation value is "50".
        - → So Asset Depreciation value from January to February = 50
        - → Asset Depreciation value from February to March = 50
        - → Asset Depreciation value from March to April = 50

- If asset is associated to an account then an 'Asset Depreciation' amortization transaction will be posted on the account with new depreciated value. If the asset is not associated with any account then no depreciation activity will be performed.
- For Life Based depreciation assets, if deprecation rates are not available during the batch job run, an error messages will be recorded for the asset into batch job error log.

2.10.7 Transaction Impact

- A new Amortization transaction provided to record the differential depreciated value on the account.
- This transaction will not affect any balances.
- This transaction will be used only to pass GL entries.
- This transaction will not be allowed to reverse and repost.
- This transaction is system posted and not allowed for manual transaction posting.
- Back dated transaction will be allowed to post.
- When "Termination" transaction is posted on the account, then system stops depreciating the asset. On reversal of "Termination" transaction it will be considered again for calculating depreciation.
- When asset Residual becomes zero in between and still Terms are there, then Zero amount will be posted.
- During the life of Lease if Asset Residual amount becomes "0", then depreciation will still continue but Zero depreciation amount will be posted.

Conversion Accounts Impact:

- In 'Conversion Accounts > Contract' following fields are updated and some new fields are provided.
- Existing "Depreciation Method" text field is converted into dropdown and populated based on Lease Contract Setup.
- Existing label "First Last Year Conv" is renamed into "Depreciation Convention". This text field is be converted into dropdown and populated based on Setup.
- All depreciation fields are be enabled/disabled based on "Depreciation Method" and can be editable.

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- For "Life Based" depreciation method, "Depreciation Rate Schedule" values will be applicable from Setup.
- For "Flat Rate" depreciation method, following depreciation field values will be populated from Setup.
  - Base Rate
  - Adjusting Rate
  - Bonus Rate
  - Depreciation Rate
- Follow same field details as provided for changes in Setup.

Account on Boarding Impact:

- Contract Fields are updated with Depreciation details.

2.10.8 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.11 <u>Payment Search screen</u>

2.11.1 <u>Overview</u>

A provision is made for the user to search Payment (Maintenance) details in Servicing > Payments > Payment Maintenance using a search screen. Using the configurable facility in the system, user is able to search the payments with different parameters.

2.11.2 <u>Payment Search Screen Changes</u>

On the Payment Search introduced a radio buttons with search options as 'Account' and 'Payment '. When the user selects the option as 'Account' screen will work as per the existing functionality.

When the user selects the option as 'Payment', the following changes are introduced:

- Radio Button option selection as 'Payment '
- The existing Search tab under Payments is modified.

'Search' tab

Two sections/blocks are provided in this tab,

- Search Criteria and
- Search Results

Search Criteria:

- 'Reset Criteria' and 'Search' buttons are added to the 'Search Criteria' section. These two buttons don't require any access keys. Same search tab access key are used for these buttons i.e. if Search tab is accessible to the logged in user, then these two buttons are available.
- 'Reset Criteria' button
  - ➢ On click of this, system will clear the search Values as well as the search result(as per the existing functionality in the Search screen in Payments)
- 'Search' button
  - ➢ On click of this, system will get the exact payment details based on the data provided and comparison operator.
  - ➢ Payment results will be showed in the 'Search Results' section.
  - ➢ If the user doesn't provide any data to the value fields then system will show an error message 'No search criteria defined. Please define minimum one search criteria"
  - ➢ If the system doesn't find any record using the provided information, then system will show a warning message, "No records found for given search criteria"
- "Search Criteria" selections will have three columns, 'Criteria', 'Comparison Operator' and 'Value'.
  - ➢ 'Criteria' –show the UDT attribute description
  - ➢ 'Comparison Operator' –show the UDT attribute operator
  - ➢ 'Value' – show LOV or input filed based on UDT attribute LOV Type.
- When the user uses the payment amount as a search criterion, then the user is expected to input one more search criteria along with it. There will be a validation to check that payment amount is accompanied by one more search criteria.

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➢ Also note that any other search criteria can be clubbed with the payment amount search criteria

Search Results

- "Search Results" section will show the following fields along with Open button. (No access key is required for 'Open' button)
  - ➢ Multi Account
  - ➢ Account Number
  - ➢ Title
  - ➢ Account Status
  - ➢ Payment Date
  - ➢ Currency
  - ➢ Payment Amount
  - ➢ Payment Transaction Amount
  - ➢ Spread
  - ➢ Mode
  - ➢ Reason
  - ➢ Reference
  - ➢ Batch #
  - ➢ Status

- If the user clicks on the Open button or double clicks a record in search results, system will open the record in payment maintenance screen.

- If the user doesn't have access to payment maintenance tab then system will show an error message 'You do not have access to payment maintenance screen".

- An UDT (user defined table) for Payment Maintenance Search is created with following attributes as part of the seed data, but user can able to configure all table columns in 'PAYMENT MAINTENANCE TABLES' (Payments/Payment Txns) and search.

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- ➢ Payment Status
- ➢ Multi Account
- ➢ Account Number (Payment transactions)
- ➢ Payment Amount (Payments)
- ➢ Payment Start Date (Payments)
- ➢ Payment End Date (Payments)
- ➢ Payment Reference Number
- ➢ Batch #

2.11.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.12 File to LOB Process Enhancements

2.12.1 Overview

New system parameters introduced to support the File and LOB option at following functionality level.

- Seed data file process
- SET-EDF
- Fax/Image processing
- SET-IFP/Input file Web Service
- Redaction policy output file
- Metro 2 file
- WFP file (SET-WFP)
- Audit scripts
- SET-LBT
- SET-ODD3
- Alert Log file
- GRI WS Log

2.12.2 File to LOB Process changes

A separate system parameter added for each of the following functionality to define whether data should be saved in File or LOB.

- If the system parameter is set to Y, system will process the data to/from LOB.
- If the system parameter is set to N, system will process the data to/from FILE.

Sl. No	Batch Job set/process	Batch Jobs	Parameter Name	Parameter Description	Comments
1	Seed data file process	NA	CMN_SED_FILE_PROCESS_TO_LOB	CHANGE SEED DATA INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	

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SI. No	Batch Job set/process	Batch Jobs	Parameter Name	Parameter Description	Comments
2	SET-EDF	EDFADR_BJ_100_01 EDFIVR_BJ_100_01	CMN_EDF_FILE_PROCESS_TO_LOB	CHANGE DIALER INTERFACE INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
3	Fax/Image processing	NA	CMN_FAX_FILE_PROCESS_TO_LOB	CHANGE FAX INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
4	SET-IFP/Input file Web Service	All batch jobs under this batch job set and Incoming file process web service	CMN_FILE_PROCESS_TO_LOB	CHANGE INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	This will use the existing system parameter
5	SET-RED (Redaction policy output file)	REDPRC_BJ_100_01	CMN_RED_FILE_PROCESS_TO_LOB	CHANGE DATA MASKING POLICY INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
7	WFP file (SET-WFP)	WUPPRC_BJ_132_01	CMN_WFP_FILE_PROCESS_TO_LOB	CHANGE WFP INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
8	Audit scripts	NA	CMN_AUD_FILE_PROCESS_TO_LOB	CHANGE AUDIT SCRIPT INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
9	SET-LBT	LBXPRC_BJ_100_01 LBXSEP_BJ_100_01	CMN_LBT_FILE_PROCESS_TO_LOB	CHANGE LOCK BOX INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	
10	SET-ODD3	ODDPRC_BJ_000_01	CMN_ODD_FILE_PROCESS_TO_LOB	CHANGE OUTPUT DATA DUMP INCOMING/OUTGOING FILE PROCESS TO CLOB PROCESS	

New DEBUG METHOD System parameters are added for alert log and GRI WS log.

- ALERT and GRI WS logging will happen according to new system parameters.

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SI. No	Log file	Parameter Name	Parameter Description	Comments
1	Alert Log file	CMN_ALERT_DEBUG_ METHOD	COMMON DEBUG METHOD FOR ALERT LOG	
2	GRI WS Log	CMN_GRI_WS_DEBUG_ METHOD	COMMON DEBUG METHOD FOR GRI WEBSERVICE LOG	

2.12.3 <u>Seed Data</u>

Refer '<u>Appendix: Seed Data</u>' chapter.

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2.13 Customer Credit Limit Enhancement for Customer Based Payments

2.13.1 Overview

Enhancement is to accept the payments at the Customer ID level and allocate to all the accounts linked to the Customer based on selected payment hierarchy.

To support the Customer based payments following screens are created/enhanced.

- Payment Hierarchy [New Screen]
- Payment Entry

2.13.2 Customer Based Payments Changes

A new system parameter added to enable the following functionality.

- System parameter "CUSTOMER BASED PAYMENT" is set to Y then Customer # and Payment Hierarchy fields and respective validations are enabled.
- If it is set to N, disable the Customer # and Payment Hierarchy fields and respective validations are disabled.(System works As-Is)

Added a new "Payment Hierarchy" setup under Administration > User.

- Following sections are available in "Payment Hierarchy" tab.
  - ➤ Hierarchy Definition
  - ➤ Account Selection Criteria
  - ➤ Hierarchy Order
- In "Hierarchy Definition" section following fields are available.

Field Name	Field Type	LOV Values	Mandatory	Comments
Name	Text Field	NA	Y	Once the name is provided this field is be read-only.
Description	Text Field	NA	Y	Provide the Allocation definition description
Enabled	Check Box	NA	Y	Enable or disable the record

- Added a sub tab "Account Selection Criteria" tab under "Hierarchy Definition" table with following fields.

Field Name	Field Type	Mandatory	Lookup	Comments
Seq	Text box(Numeric)	Y	NA	
Parameter	LOV	Y	This LOV will display the Account Parameters	This will be UDT with Account Parameters

Field Name	Field Type	Mandatory	Lookup	Comments
Comparison Operator	LOV	Y	COMPARISON_OPERATOR_CD	
Criteria Value	Text Box	Y	NA	
Logical Operator	LOV	N	LOGICAL_OPERATOR_CD	
Enabled	Check	Y	NA	

"Parameter" LOV will display the following fields.

- Company
- Branch
- Status
- Rate
- Delinquency Days
- Amount Due
- Outstanding Balance
- Activation Date

Added a "Check Criteria" button at Account Selection Criteria table, this will run and validate the criteria given in "Select criteria" table.

Note: this Select Criteria tab is similar to Setup >Queues >Customer Service >Selection Criteria tab.

- In Hierarchy Order section following fields are available.

Field Name	Field Type	LOV Values	Mandatory (Y/N)	Comments
Seq	Text Field (Number)	NA	Y	NA
Sort Field	LOV	UDT: CUSTOMER PAYMENT HIERARCHY ORDER PARAMETERS	Y	Populate the LOV values from the user defined table. • Total Due • Rate • Total Outstanding Amount • Activation Date • Delinquency Days
Order	LOV	SORT_CD	Y	Ascending or Descending of Sort field.

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Hierarchy Definition

Account Selection Criteria

- Added a new system parameter "**Description: Customer Default Payment Hierarchy**" to default the Payment Hierarchy in Customer Details at the time of funding.

  Following are the system parameter values

Parameter Value	Parameter Type	Default Values	Comments
Payment Hierarchy	Text Box	Equal Amount	Values will be taken from Payment Hierarchy Setup. If the provided value is invalid system will by default update "Equal Amount" value at Payment Hierarchy field in Servicing >Customer Details.

- If an existing customer is added to an application, system will not look into the above parameter.

- Added a new Payment Hierarchy field in "Customer Details >Customer >Business" in servicing.

Field Name	Field Type	LOV Values	Mandatory(Y/N)	Comments
Payment Hierarchy	LOV	Derived from the Payment Hierarchy Setup and "Equal Amount" values is available along with derived values.	N	In case of funding an application with new customer this field will be populated from system parameter.

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- Added the "Payment Hierarchy" parameter to following transactions which will update the "Payment Hierarchy field in Servicing >Customer Details >Customer/Business
  - CUS_MAINT
  - CUS_ADD_MAINT
  - BUS_MAINT

Field Name	Field Type	LOV Values	Mandatory(Y/N)	Comments
Payment Hierarchy	Text Field	Values will be taken from Payment Hierarchy Setup and "Equal Amount" value will be accepted along with Setup values.	N	NA

Customer Based Payments Impact on Payment Entry Screen:

- Added the following fields to Payments section below the batch section in Payment Entry screen.

Field Name	Field Type	LOV Values	Mandatory(Y/N)	Comments
Customer #	New Searchable LOV	NA	N	This field LOV will display the Customer # / Business # in following format : Customer: XXXXXX – First & Last Name Business: XXXXX –Name
Payment Hierarchy	New LOV	Derived from the Payment Hierarchy Setup and "Equal Amount" value will be available along with derived values.	N	If the Customer/Business # field provided then this field will be Mandatory otherwise non mandatory. This method is used to filter the accounts for which the payment amount needs to be allocated.

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Servicing> Payments >Payment Entry

Servicing> Payments >Payment Entry

- If there is a "Payment Hierarchy" value provided at Servicing >Customer Details table same will be propagated to "Payment Entry" by default once user selected a customer at Payments section and still user can edit the field.

- Added a "Populate Accounts" button in Payments section at each record level.

- Only when user selects the "Multi Account" check box at Payments section, system will enable "**Payment Hierarchy**" field and "**Populate Account**" button.
  - → In case of single payment these fields will be read only.
- When a user checks the Multi Account check box and provides the Customer #, Payment Hierarchy, Amount, Reference, other required fields in payments section and clicks on Populate Accounts button, system will auto populate the accounts in Payment Txns section based on following criteria.
  - → Accounts filtered based on Payment Hierarchy where the selected customer is primary and having the same company, branch selected at Batch level.
  - → In case of business, accounts filtered based on Payment Hierarchy which are associated with the business and having the same company, branch selected at Batch level.
  - → Payment Allocation order will be based on "Payment Hierarchy" selected.
  - → The Amount field provided at Payments section level will be considered for Payment allocation.
  - → Existing validations of Ctrl Total # and Ctrl Total Amt fields will be as-Is and user is expected to populate the Total # and Total Amt fields (Current behaviour).
  - → In case of Customer Payment which is having the "Payment Hierarchy" as "Equal Amount" divide the total amount in to equal portions based on filtered accounts and allocate the payments even though there is no due available.
    In this case Accounts which are closed will not be considered for payment txns record population and payment allocation.
  - → In case there are accounts with zero dues and Payment Hierarchy is other than Equal Amount, system will allocate the amount only to the accounts with dues greater than zero in allocation hierarchy.
  - → In case there are accounts with dues greater than zero and Payment Hierarchy is other than Equal Amount then there is a possibility that entire payment may get consumed by fewer than total eligible accounts of given Customer#

As an example – If payment amount is $100 and there are 3 eligible accounts for given Customer# then
  - → $100 may all be allocated to Account#1 with current dues > 100. In this case, Account#2 and Account#3 will not be populated.
  - → $100 may be allocated to Account#1 and Account#2 where Account#1 dues are $80 and Account#2 dues are $50. In this case, Account#3 will not be populated.
  - → $100 may be allocated to Account#1, Account#2 and Account#3 where Account#1 dues are $50, Account#2 dues are $30 and Account#3 dues are $40. In this case, all 3 accounts will be populated.
- In case any excess amount available after the allocation, system will not allocate to any account. User is expected to adjust that amount among populated accounts.
  - → After populating the Payment Txns records using Customer # and Payment Hierarchy, if any of the field gets changes later system will delete the record which are populated in Payment Txns section. Here user is expected repopulate the records using the "Populate Accounts" button at Payments record level.

2.13.3 Customer Based Payments File Upload

Payment Upload file - Following field are added to new customer based payment file.

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Header:

Field Name	Expected Values	Mandatory (Y/N)	Validations/Comments
Company	Provide Company Code	Y	System validates Company code in OFSLL and rejects entire batch, if no such company code found.
Total	Provide 'Total # of 'Detail Records'	Y	Accepts only Numerical If user inputs Decimals/Negative Value/Text – System rejects the whole batch.
Total Amount	Provide 'Total Amt' i.e., sum of Details Records	Y	Accepts only Numerical If user inputs Negative Value/Text – System rejects the whole batch.

Detail Record:

Field Name	Expected Values	Mandatory (Y/N)	Default	Validations/Comments
Customer #	Customer#/Business # number	Y		If the provided Customer #/Business # is not matching reject the record and place it in bad file. "Customer#/Business # not matching".
Payment Hierarchy	Payment Hierarchy value from Setup	N		If the Payment Hierarchy method is provided validate it with setup, if the value is not matching reject the record and place it in bad file. If no Payment Hierarchy is provided take the default value from the Customer Details table. If the Payment Hierarchy at customer Details is disabled move the record to bad file with error message "Provided Payment Hierarchy is disabled". If Payment Hierarchy is not provided at Customer Details take from system parameter. If the system parameter is disabled the default value "Equal Amount" is considered.

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Field Name	Expected Values	Mandatory (Y/N)	Default	Validations/Comments
Currency	Provide Currency Code	Y		System validates Currency code/exchange rate in OFSLL and rejects that record, if no such Currency code found.
Pmt Date	Payment Date	Y		Reject record, if date is future date. This will be added to bad records. User is expected to check bad file.
Pmt Amount	Payment Amount	Y		Reject if input is not numeric or negative amount. This will be added to bad records. User is expected to check bad file.
Reference	Free Text	N		Reference Number
Mode	Provide 'Mode' Code	Y		System validates 'Mode' code in OFSLL and rejects entire batch, if no such Mode code found.
Reason	Provide 'Reason Code'	N		System validates 'Reason' code in OFSLL and rejects entire batch, if no such Reason code found.

- A new batch Job "CUSTOMER PAYMENT FILE UPLOAD" is created under SET-IFP job set to process the customer payment file.
- Above batch job will do the following process
  - ➢ The batch will be created in [OPEN/HOLD/POSTED] status based on system parameter [PMT_BATCH_POSTING].
  - ➢ Customer payment records will be created with multi check box checked in Payments tab.
  - ➢ Customer accounts will be populated and allocate the payment based on Payment Hierarchy in Payment Txns table.
- When batches are created the Sub type as "Payment Upload" will be used as a default value.
- If there is any excess amount pending after allocation, system will create a batch in OPEN status with prepopulating the accounts, but the excess amount it expected to be distributed by user.
- While posting the batch system will validate all the existing validations and if any deviation will show the respective error message.
- Validations:

- ➢ System will validate if the provided Customer #/Business # is invalid and create a bad file with these records (Error message: invalid Customer/Business #) but process rest of the records.
- ➢ If the provided "Payment Hierarchy" is invalid or disabled, System will create a bad file with these records (Error message: invalid Payment Hierarchy).
- ➢ Skip the payments to accounts with zero dues in filtered accounts.
- ➢ If no accounts are available with provided Customer #/Business # and Payment hierarchy, system will not create the batch and payments record. But it will put the message on log file.
- ➢ If there is an excess amount after the allocation to filtered accounts and system parameter is set to "POST", system will create the Payment batch, Payments and Payment Txns record and put a message in to Error Reason field saying "Total Amount not matching with Control Total Amount".

2.13.4 Customer Based Payments Web Service

Two new Customer based Payments web services are created for Customer and Business.

- Following fields are available in Customer Payments web services.
  - ➢ In case of Customer Based Payments – Customer web service, Customer # field will be available and rest of the fields are same.
  - ➢ In case of Customer Based Payments – Business web service, Business # field will be available and rest of the fields are same.

Field Name	Expected Values	Mandatory (Y/N)	Default	Validations/Comments
Customer # / Business #	Customer#/Business # number	Y		If the provided Customer #/Business # is not matching reject the record and place it in bad file. << Invalid Customer #/Business #>>
Payment Hierarchy	Payment Hierarchy value from Setup	N		If the Payment Hierarchy method is provided validate it with setup, if the value is not matching reject the record and place it in bad file. << Invalid Payment Hierarchy method>> If no Payment Hierarchy is provided take the default value from the Customer Details table. If no Payment Hierarchy is provided at Customer Details take from system parameter. If the system parameter is disabled the default value "Equal Amount" is considered.

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Field Name	Expected Values	Mandatory (Y/N)	Default	Validations/Comments
Company	Provide Company Code	Y		System validates Company code in OFSLL and rejects entire batch, if no such company code found. << Invalid Company Code>>
Currency	Provide Currency Code	Y		System validates Currency code/exchange rate in OFSLL and Show an error message if no such Currency code found. << Invalid Currency Code>>
Pmt Date	Payment Date	Y		Show an error message if date is future date. <<Payment Date is Future Dated>>
Pmt Amount	Payment Amount	Y		Show an error message if not numeric or negative amount. <<Invalid Payment Amount>>
Reference	Free Text	N		Reference Number
Mode	Provide 'Mode' Code	Y		System validates 'Mode' code in OFSLL and Show an error message if no such Mode code found. <<Invalid Mode Code>>
Reason	Provide 'Reason Code'	N		System validates 'Reason' code in OFSLL and Show an error message if no such Reason code found. <<Invalid Reason Code>>

- When user provides the Customer # / Business #, Payment Hierarchy, Reference number and other fields and posts the payment web service, system will post the payments to accounts based on following criteria.

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- Accounts filtered based on Payment Hierarchy where the selected customer is primary and having the same company.
- In case of business, filter accounts associated with the business and having the same company.
- Payment Allocation will be based on "Payment Hierarchy" selected.
  - → Consider the Total Amount provided in service for Payment allocation.
  - → Post the allocated payments to respective accounts in Servicing >Transaction History >Transactions.
  - → If user provides the reference number same will be prepopulated in Reference number field in account Payment record at Servicing >Transaction History >Transactions.
  - → In case of Customer Payment which is having the "Payment Hierarchy" as "Equal Amount" divide the total amount in to equal portions based on filtered accounts and post the payment even though there is no due available.
  - → Skips the payments to accounts with zero dues in filtered accounts, if all eligible accounts have zero dues then we will treat it as "Equal Amount" and divide equally.
  - → In case any excess amount available after the allocation shown as error saying "After the allocation excess amount is available".
  - → As part of response, system will send the Transaction ID's of Payments posted at respective accounts in case of successful posting.
  - → If no accounts are available for provided Customer # and Payment Hierarchy combination, web service will show an error message saying "No Accounts found for provided combination".
- If user provides an invalid Customer #/Business #, system will return an error message "Invalid Customer/Business #".
- This web service will post the payments directly on to the account and show the record in "Servicing >Transaction History >Transactions" tab.
- This service is used only to post the customer based payments.

2.13.5 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.14 <u>Imputed Interest Accounting Enhancements</u>

2.14.1 <u>Overview</u>

If a financial institution provides loan to their customers with an interest rate which is significantly below the fair market interest rate published by regulator and if the stated and fair market interest rates are substantially different, it is necessary to record the transaction using an interest rate that more closely accords with the fair market interest rate. This takes the form of discounting the revenue earned at the time of sale, and recording as "imputed" interest over the life of the customer's loan.

- This Imputed Interest enhancement is only applicable for LOAN products.

2.14.2 <u>Imputed Interest Accounting Changes</u>

2.14.3 <u>Setup Changes</u>

Added a new contract parameter "Imputed Interest" check box to enable and disable imputed interest functionality.

- If the above check box is N, system will hide the Imputed Interest fields in Origination >Contract and rest of the functionality will not be available.
- If the above check box is Y, system will show the imputed interest rate field in Origination >Contract and rest of the functionality will be available.

A new "Regulatory Rate" tab is added in Setup> Products with following fields.

Field Name	Field Type	Default Values	Mandatory(Y/N)	Comments
Name	Text Field	NA	Y	Once the name is provided and record is saved, system will make this field as read only. This field will be unique. If user provides same name to another record system will show an error saying "Record Already Exists" and don't allow to save the record.
Description	Text Field	NA	Y	
Start Dt	Date	GL Date	Y	
End Dt	Date	12/31/4000	Y	
Enabled	Check Box	N	Y	
Rate	Number	0.0000	Y	
Selection Criteria				

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Field Name	Field Type	Default Values	Mandatory(Y/N)	Comments
Company	LOV	ALL	Y	
Branch	LOV	ALL	Y	
Billing Cycle	LOV	MONTHLY	Y	
Product	LOV	ALL	Y	
Asset Class	LOV	ALL	Y	
Asset Type	LOV	ALL	Y	
Sub Type	LOV	ALL	Y	
Asset Make	LOV	ALL	Y	
Asset Model	LOV	ALL	Y	
State	LOV	ALL	Y	
Currency	LOV	ALL	Y	

- If user tries to add a record with same start, end date and selection criteria of an existing enabled record then system displays an error message saying "Record Already exists" and don't allow to save the record.

- At origination > contract the regulatory rate setup record will be selected based on following criteria.
  - ➢ if the contract date is Greater than equal to start date and less than or equal to end date
  - ➢ Application parameters must match with setup selection criteria.
  - ➢ Regulatory Rate record is enabled.

- Seed data for new lookup value is added for AMORTIZE_TXN_TYPE_CD as "IMPUTED INTEREST" and respective Imputed Interest amortization balance.

- A new Amortization Method "IMPUTED SCHEDULE" is added as "AMORTIZE_CALC_METHOD_CD" lookup value.

- A new batch job under SET-TAM is added to process the imputed interest amortization based on the imputed amortization schedule saved at account level.

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- Seed data for new lookup value in TXN_GROUP_CD as "FUNDING IMPUTED INTEREST" is added with sub code as "FUN".
- Following funding transactions are added to record the imputed interest amount during loan creation stage of the account and to post the reversal entry for the imputed interest in case of loan reversal/cancellation transaction.
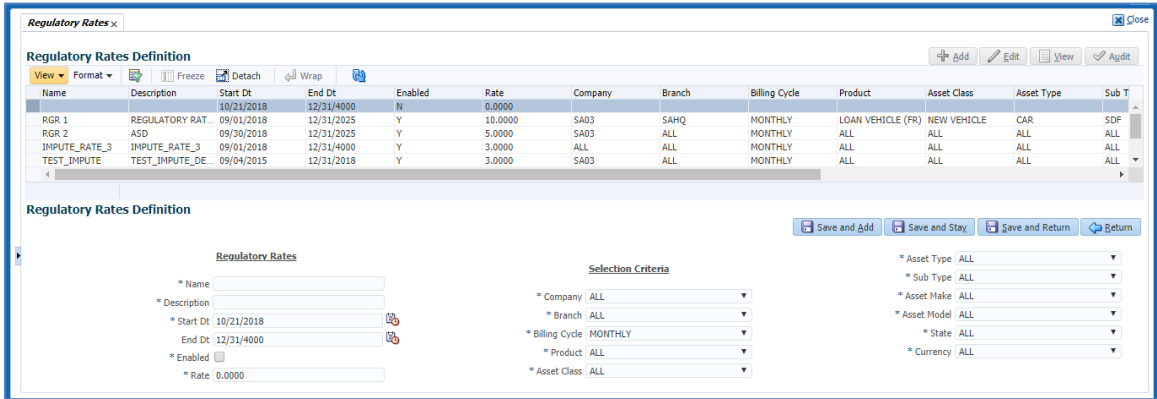
Description	Group	Action	Monetary	System Defined	Enabled	Txn/Bal Type	Statement Txn Type	Batch	Manual	Statement Print	GL
FND IMPUTED INTEREST	FUNDING IMPUTED INTEREST	POST	Y	No	Y	NONE	NONE	N	N	N	Y
REVERSE FND IMPUTED INTEREST	FUNDING IMPUTED INTEREST	REVERSE	Y	No	Y	NONE	NONE	N	N	N	Y

- The following amortization transactions are added in Setup > Administration> System> Transaction Codes which impact imputed interest amortization balance.

Description	Group	Action	Monetary	System Defined Yes/No	Enabled	Txn/Bal Type	Statement Txn Type	Batch	Manual	Statement Print	GL
IMPUTED INTEREST AMORTIZE	AMORTIZATION	POST	Y	No	Y	NONE	NONE	N	N	N	Y

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Description	Group	Action	M o n e t a r y	System Defined Yes/No	E n a b l e d	Txn/Bal Type	Statem ent Txn Type	B a t c h	M a n u a l	State ment Print	G L
IMPUTED REVERSE INTEREST AMORTIZE	AMORTIZA TION	REVER SE	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED INTEREST AMORTIZE WRITE-OFF	AMORTIZA TION	POST	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED REVERSE INTEREST AMORTIZE WRITE-OFF	AMORTIZA TION	REVER SE	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED INTEREST AMORTIZE ADJUSTME NT MINUS	AMORTIZA TION	POST	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED INTEREST AMORTIZE ADJUSTME NT MINUS REVERSE	AMORTIZA TION	REVER SE	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED INTEREST AMORTIZE ADJUSTME NT PLUS	AMORTIZA TION	POST	Y	No	Y	NONE	NONE	N	N	N	Y
IMPUTED INTEREST AMORTIZE ADJUSTME NT PLUS REVERSE	AMORTIZA TION	REVER SE	Y	No	Y	NONE	NONE	N	N	N	Y

2.14.4 Origination Changes

The following fields are added to Origination >Contract.

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Field Name	Field Type	Default Values	Mandatory(Y/N)	Comments
Regulatory Name	Text Field (Read Only)	NA	Y	This field will be rendered only when the contract level "Imputed Interest" check box = Y. This field will be populated based on the regulatory rate setup record selected at Origination >Contract.
Regulatory Rate	Number (Read Only)	0.0000	Y	This field will be rendered only when the contract level "Imputed Interest" check box = Y. This filed will be populated based on the "Regulatory Rate" setup when user selected instrument and clicks on "Load Instrument" button. If no setup is identified to populate Regulatory Rate; there is an EDIT available at contract level which will validate the availability of regulatory rate in case of "Imputed Interest" check box = Y at contract setup.
Imputed Rate	Number (Read Only)	0.00	Y	This field will be rendered only when the contract level "Imputed Interest" check box = Y. If the Contract Rate – Regulatory Rate = 0; Imputed Rate is "0". If the Contract Rate – Regulatory Rate > 0; Imputed Rate is "0". If the Contract Rate – Regulatory Rate < 0; Imputed rate value is "Regulatory Rate - Contract Rate".

- Once the application is funded the Contract Imputed rate will be propagated to servicing >Account details >Contract Information.
- A new "Imputed Rate" field is added to Servicing >Account Details where the latest imputed interest rate will be saved.
- The Regulatory Rate and Imputed Rate fields are added to following functionalities.
  - Account On boarding web service
  - API process
- New "REQUIRED: CONTRACT REGULATRORY RATE" contract edit is added to validate the availability of the "Regulatory rate" in origination >contract information.

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- This edit is available in following functionalities
  - → Account On boarding web service
  - → API process
- As part of the funding if the contract Imputed Rate is >0, system will calculate the Imputed Interest Amortization schedule based on following calculation.
  - Following are the steps to calculate the Imputed Interest Rate schedule.
    - → Calculate the Present Value of Principle amount which is available in Current repayment schedule for each period.
    - → Take the total of Principal Amount Present Values as Outstanding amount and calculate the Imputed Interest amount based on Imputed Interest rate for each period and plot the Amortization schedule starting from first payment date to through to the maturity date.
    - → While calculating the Imputed Interest amount system will make use of same contract parameters which are used as part of normal interest calculation (First Payment Date, Accrual Base Method etc...).
- As part of funding, system will do following actions.
  - Imputed Interest Amortization schedule will be calculated.
  - The Imputed Interest Amortization schedule will be propagated to servicing which is saved at account level.
  - The Imputed Interest funding transaction "FND IMPUTED INTEREST" will be posted with total imputed interest amount.
  - The Amortization Transactions record will be created in Servicing >GL Transactions >Amortized Transactions.
    - → The opening balance will be populated with total imputed interest amount which is calculated as part of Imputed Interest amortization schedule.
    - → The amortization method field will be populated with "IMPUTED SCHEDULE" method.
    - → Amortized transactions record frequency will be populated as "Account Billing frequency".

Origination >Contract >Contract Information

Servicing >GL Transactions >Amortization Transactions

2.14.5 Servicing Changes

- The transaction code 'IMP_INT_FUN_REV' will be used to post the reversal entry for the imputed interest in case of loan reversal/cancellation/Void transaction.

- The total Imputed Interest Amount propagated from origination as part of funding transactions will be saved at account level and will be available for amortization throughout the life of the loan.

  - ➢ The IMPUTED INTEREST AMORTIZATION TRANSACTIONS PROCESSING (SET-TAM >New batch job) batch job will amortize the imputed interest amount based on imputed interest amortization schedule and the Imputed Interest Amortization GL transaction "IMPUTED INTEREST AMORTIZE" will be posted at Servicing >GL Transactions >Amortization Transactions tab.

- In case of early payoff, system will calculate the remaining unearned imputed interest from amortization schedule and post an IMPUTED INTEREST AMORTIZE WRITE-OFF transaction at Servicing >GL Transactions > Amortized Transactions.

- In case Payoff transaction is reversed then system will retain the Imputed interest by posting a REVERSE IMPUTED INTEREST AMORTIZE WRITE-OFF transaction at Servicing >GL Transactions > Amortized Transactions.

- During charge off processing of the loan account, remaining unearned imputed interest will be charged off by posting IMPUTED INTEREST AMORTIZE WRITE-OFF transaction at Servicing >GL Transactions > Amortized Transactions.

- If the Charge off transaction is reversed, system will retain the imputed interest by posting REVERSE IMPUTED INTEREST AMORTIZE WRITE-OFF transaction at Servicing >GL Transactions > Amortized Transactions.

- DUE DATE CHANGE/ DUE DATE CHANGE OVERRIDE transactions will recalculate the imputed interest amortization schedule along with repayment schedule and post an Imputed Interest amortization adjustment transaction.

  - ➢ If the same transactions are reversed, system reverses the changes happened on imputed interest amortization schedule and reverse the adjustment transaction.

- As part of "Change Payment Amount" and "Change Term" if the repayment schedule is recalculated, system also recalculate the Imputed Interest Amortization schedule accordingly and post an Imputed Interest amortization adjustment transaction

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> ➢ Reversal of these transactions reverses the changes happened on imputed interest amortization schedule and reverse the amortization adjustment transaction.

- As part of "Change Payment Amount" and "Change Term" if the repayment schedule is recalculated, system will also recalculate the Imputed Interest Amortization schedule accordingly and post an Imputed Interest amortization adjustment transaction
  - ➢ Reversal of these transactions will reverse the changes happened on imputed interest amortization schedule and reverse the amortization adjustment transaction.

2.14.6 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.15 RESTful Web Services

2.15.1 Overview

RESTful Web Services are enhanced with below:

- Relaxed restriction of strict input format
- Restriction of Customer Service data based on user roles
- New RESTful Web Service
- Changes/Modifications to existing Web Services
- URL Restructuring
- Support for Swagger documentation

2.15.1 Description

Relaxed restriction of strict input format

OFSLL Restful Web Services are enhanced to remove the restriction of strict input format. This is done by moving current XSD based element validation to JAXB validation annotations. Starting from 14.6, OFSLL will use XSD to determine the request and response structure and JAXB annotations to validate input data.

Restriction of Customer Service data based on user roles

- OFSLL Customer Service Web Services are enhanced to support restriction of data based on Account Status and Account Condition. In this release, couple of services are only added for restriction of data and will be enhanced to other services based on implantation feedback.

- A new tab *Security Access Definition Details* is be added in *OFSLL → Setup → Access → Web Service→ Security User Access Details* to record Restful Web Service access based on Account Status and Account Condition. This tab is enabled based on indicator available table FLS_ACCESS [FAC_ACCESS_GRID_DISPLAY_IND].

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- If there are multiple *Security Access Definition Details,* OFSLL will apply access rules based on Web Service user responsibility or will apply **All** if it does not match extract responsibility.

  For example, with reference to the above screen shot for "Post Customer Preference", if user with Responsibility "SUPERUSER" login then SUPERUSER Access definition will be applied and for another user "ALL" responsibility access definition will be applied.

- OFSLL supports multiple user conditions on an Account. If atleast one account condition listed as the not allowed in the setup, system will not send the response data on that account. System also requires to have atleast one account condition listed as the allowed in the setup to fetch the data.

- For GET services, OFSLL returns HTTP error code 400 if no data is available due to restriction. For POST/PUT service, OFSLL will return HTTP error code 401 to insert/update restricted data.

New RESTful Web Service

Following new RESTful Web Services have been introduced in current release.

Service	Purpose	Method
Usage and Rental Service	User can fetch Usage and Rental Details configured under asset type setup using the different search parameters.	GET
Collateral Usage History	Provides capability to Load the Collateral Usage details	POST
Advance Disbursement	Disburse Advance to the account.	POST
Advance Disbursement	Retrieve disbursement details for stage funded loans or line accounts.	GET
Application Contract Creation	For an Approved Contract auto-load the Contract	POST
Rental Application Entry	Ability to receive Rental Application	Post
Asset Service	Create an Asset in OFSLL	Post
Asset Service	Fetch the Asset Detail including valuations and add-ons	GET
Customer Payment Posting	Provides feature to receive payment at the Individual Customer Level	Post
Business Payment Posting	Provides feature to receive payment at the Business Customer Level	Post
Create User	Create user in OFSLL	POST

Changes/Modifications to existing Web Services

Service Name	Method	Comments
Application Entry Service	POST	

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Service Name	Method	Comments
Application Update Service	PUT	Rental and Usage matrix details are added under collateral block
Application Detail Service	GET	
Account on Boarding Service	POST	
Account Detail Service	GET	
Products Service	GET	Agreement Type field is added in the response data
Scenario Analysis Update Service	PUT	URI changed and inquiry ID removed from path param and it will be sent as part of request body.

URL Restructuring

URL's of below service have been restructured to sync with OFSLL modules.

Service Name	Method	Old URI	New URI
Scenario Analysis Update Service	PUT	http://\<HOST>:\<PORT>//Ofsll RestWS/service/api/resources /origination/scenarioanalysis/a pplication/inquiryid/{inquiryid}	http://\<HOST>:\<PORT>//OfsllR estWS/service/api/resources / origination/scenarioanalysis/ap plication

REST interface Access key changes

Service Name	Old Access key	New Access key
Business comment (POST)	FLL.BUSINESSCOMMENTSR ESOURCEIMPL.POST.POSTC OMMENTS|ACCESS TO POST BUSINESS COMMENTS SERVICE|Y|Y|SER|WEB|WS|N	FLL.BUSINESSCOMMENTSRESOURC E.POST.POSTCOMMENTS| ACCESS TO POST BUSINESS COMMENTS SERVICE |Y|Y|SER|WEB|WS|N
Business Comment (GET)	FLL.BUSINESSCOMMENTSR ESOURCEIMPL.GET.FETCHC OMMENTS|ACCESS TO GET BUSINESS COMMENTS SERVICE|Y|Y|SER|WEB|WS|N	FLL.BUSINESSCOMMENTSRESOURC E.GET.FETCHCOMMENTS| ACCESS TO GET BUSINESS COMMENTS SERVICE |Y|Y|SER|WEB|WS|N

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Service Name	Old Access key	New Access key
Customer Document List (GET)	FLL.CUSTOMERDOCUMENT RESOURCEIMPL.GET.LISTCU STOMERDOCUMENTS|ACCE SS TO FETCH LIST OF CUSTOMER DOCUMENTS DOWNLOAD SERVICE|Y|Y|SER|WEB|WS|N	FLL.CUSTOMERDOCUMENTRESOUR CE.GET. LISTCUSTOMERDOCUMENTS| ACCESS TO FETCH LIST OF CUSTOMER DOCUMENTS DOWNLOAD SERVICE|Y|Y|SER|WEB|WS|N
Customer Document Download (GET)	FLL.CUSTOMERDOCUMENT RESOURCEIMPL.GET.DOWN LOADCUSTOMERDOCUMEN T|ACCESS TO CUSTOMER DOCUMENT DOWNLOAD SERVICE|Y|Y|SER|WEB|WS|N	FLL.CUSTOMERDOCUMENTRESOUR CE.GET. DOWNLOADCUSTOMERDOCUMENT| ACCESS TO CUSTOMER DOCUMENT DOWNLOAD SERVICE |Y|Y|SER|WEB|WS|N
Customer Document Upload (POST)	FLL.CUSTOMERDOCUMENT RESOURCEIMPL.POST.UPLO ADCUSTOMERDOCUMENT|A CCESS TO UPLOAD CUSTOMER DOCUMENT SERVICE|Y|Y|SER|WEB|WS|N	FLL.CUSTOMERDOCUMENTRESOUR CE.POST. UPLOADCUSTOMERDOCUMENT |ACCESS TO UPLOAD CUSTOMER DOCUMENT SERVICE |Y|Y|SER|WEB|WS|N
Customer Credit limit(GET)	FLL.CREDITLIMITRESOURCE IMPL.GET.FETCHCUSTOMER |ACCESS TO CUSTOMER CREDIT LIMIT SERVICE|Y|Y|SER|WEB|WS	FLL.CREDITLIMITRESOURCE.GET.FE TCHCUSTOMER|ACCESS TO CUSTOMER CREDIT LIMIT SERVICE|Y|Y|SER|WEB|WS
Business Credit Limit (GET)	FLL.CREDITLIMITRESOURCE IMPL.GET.FETCHBUSINESS| ACCESS TO BUSINESS CREDIT LIMIT SERVICE|Y|Y|SER|WEB|WS	FLL.CREDITLIMITRESOURCE.GET.FE TCHBUSINESS|ACCESS TO BUSINESS CREDIT LIMIT SERVICE|Y|Y|SER|WEB|WS
Business Document List (GET)	FLL.BUSINESSDOCUMENTR ESOURCEIMPL.GET.LISTBUS INESSDOCUMENTS|ACCESS TO FETCH LIST OF BUSINESS DOCUMENTS DOWNLOAD SERVICE|Y|Y|SER|WEB|WS	FLL.BUSINESSDOCUMENTRESOURC E.GET. LISTBUSINESSDOCUMENTS| ACCESS TO FETCH LIST OF BUSINESS DOCUMENTS DOWNLOAD SERVICE|Y|Y|SER|WEB|WS
Business Document Download (GET)	FLL.BUSINESSDOCUMENTR ESOURCEIMPL.GET.DOWNL OADBUSINESSDOCUMENT|A CCESS TO BUSINESS DOCUMENT DOWNLOAD SERVICE|Y|Y|SER|WEB|WS	FLL.BUSINESSDOCUMENTRESOURC E.GET. DOWNLOADBUSINESSDOCUMENT|A CCESS TO BUSINESS DOCUMENT DOWNLOAD SERVICE|Y|Y|SER|WEB|WS

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Service Name	Old Access key	New Access key
Business Document Upload (POST)	FLL.BUSINESSDOCUMENTRESOURCEIMPL.POST.UPLOADBUSINESSDOCUMENT|ACCESS TO UPLOAD BUSINESS DOCUMENT SERVICE|Y|Y|SER|WEB|WS	FLL.BUSINESSDOCUMENTRESOURCE.POST. UPLOADBUSINESSDOCUMENT|ACCESS TO UPLOAD BUSINESS DOCUMENT SERVICE|Y|Y|SER|WEB|WS
Customer comment (POST)	FLL.CUSTOMERCOMMENTSRESOURCEIMPL.POST.POSTCOMMENTS|ACCESS TO POST CUSTOMER COMMENTS SERVICE|Y|Y|SER|WEB|WS|N	FLL.CUSTOMERCOMMENTSRESOURCE.POST.POSTCOMMENTS|ACCESS TO POST CUSTOMER COMMENTS SERVICE|Y|Y|SER|WEB|WS|N
Customer Comment (GET)	FLL.CUSTOMERCOMMENTSRESOURCEIMPL.GET.FETCHCOMMENTS|ACCESS TO GET CUSTOMER COMMENTS SERVICE|Y|Y|SER|WEB|WS|N	FLL.CUSTOMERCOMMENTSRESOURCE.GET.FETCHCOMMENTS|ACCESS TO GET CUSTOMER COMMENTS SERVICE|Y|Y|SER|WEB|WS|N

Support for Swagger documentation

Swagger is an open source tool based on OpenAPI (https://www.openapis.org) standards that is used for documenting RESTful APIs. The goal of Swagger is to define a standard, language-agnostic interface to REST APIs which allows both humans and computers to discover and understand the capabilities of the service without access to source code, documentation, or through network traffic inspection.

Existing OFSLL RESTful documentation is upgraded to Swagger 2.0 documentation. OFSLL Swagger documentation can be accessed in two ways:

Online

- Swagger documentation for OFSLL services are shipped with the OFSLL Web Service ear file.
- Below are the steps to access swagger documentation:

➤ Navigate to Swagger UI page http://<host>:<port>/<deployment context>/

➤ This page displays all the OFSLL RESTful Web Services hosted as part of current release.

- On click of individual service, Swagger provides details like RESTful Service description, Sample Request/Response for json and xml, Data model, Element description and HTTP error codes.

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Business comments service ⌄

| POST | /servicing/business/comments | Post Business comments details |

This service is used to post Customer Credit Limit >Business >Comments

Parameters

Name	Description

body * required
 	
(body)
	Post Business Comments request
	
	Note : Start below JSON example with node
	{
	"BusinessCommentsRequest":
	
	and end with
	}
	
	Example Value | Model
	
	``json
	{
	    "UserCode": "USR123",
	    "BusinessComments": [
	        {
	            "BusinessNumber": "0000001001",
	            "Comments": [
	                {
	                    "Comment": "Comment from the user",
	                    "Custom": {
	                        "StringData": [
	                            {
	                                "KeyName": "OrgName",
	                                "KeyValue": "Oracle"
	                            }
	                        ],
	                        "NumberData": [
	                            {
	                                "KeyName": "BusinessPhoneNumber",
	                                "KeyValue": 1234.01
	                            }
	                        ],
	                        "DateData": [
	                            {
	                                "KeyName": "CreationDate",
	                                "KeyValue": "2017-12-18T00:00:00"
	                            }
	                        ]
	                    }
	                }
	            ]
	        }
	    ]
	}
	``
	
	Parameter content type
	
	[application/json ⌄]

Responses

Response content type [application/json ⌄]

Code	Description

201	*Business comments posted successfully*
	
	Note : Start below JSON example with node
	{
	"BusinessCommentsResponse":
	
	and end with
	}
	
	Example Value | Model
	
	``json
	{
	    "BusinessComments": [
	        {
	            "BusinessNumber": "0000001001",
	            "Comments": [
	                {
	                    "Comment": "Comment from the user",
	                    "CommentedBy": "USR123",
	                    "CommentedDate": "2017-12-18T00:00:00",
	                    "Custom": {
	                        "StringData": [
	                            {
	                                "KeyName": "OrgName",
	                                "KeyValue": "Oracle"
	                            }
	                        ],
	                        "NumberData": [
	                            {
	                                "KeyName": "BusinessPhoneNumber",
	                                "KeyValue": 1234.01
	                            }
	                        ],
	                        "DateData": [
	                            {
	                                "KeyName": "CreationDate",
	                                "KeyValue": "2017-12-18T00:00:00"
	                            }
	                        ]
	                    }
	                }
	            ],
	            "Result": {
	                "Status": "SUCCESS",
	                "StatusDetails": "Comments Successfully Posted/Queried"
	            }
	        }
	    ],
	    "Result": {
	        "Status": "SUCCESS",
	        "StatusDetails": "Comments Successfully Posted/Queried"
	    }
	}
	``

400	*Bad Request*
401	*User not authenticated*

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Note: A root element should be added to all the JSON Request/Response sample. The root element details are different for each service and are added as part of Note for Request and Description as part of Response.

Request

```
body * required               Post Business Comments request

(body)                        Note : Start below JSON example with node
                              {
                              "BusinessCommentsRequest":

                              and end with

                              }
```

Response

```
201                           Business comments posted successfully

                              Note : Start below JSON example with node
                              {
                              "BusinessCommentsResponse":

                              and end with

                              }
```

Offline

- Download **swagger.json** file from here.
- Use online editor[apiary/swagger] to generate documentation
  - https://app.apiary.io/<regestration id>/editor
  - https://editor.swagger.io/

Note: These editors usually accept yaml as an input but can convert json to yaml at runtime.

2.15.2 Seed Data

Refer 'Appendix: Seed Data' chapter.

2.16 Create User Web Service

2.16.1 Overview

Provide functionality to create new OFSLL User.

2.16.2 Description

This Web Service is used to create OFSLL users. If user posts this web service following validations will be triggered:

- User Code All Ready Exists
- Invalid Organization
- Invalid Division
- Invalid Responsibility
- Invalid Time Zone
- Invalid Time Zone Level
- Invalid Supervisor User Code

2.16.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.17 **Advance Disbursement Web Service**

2.17.1 Overview

Provided a function to third party user to POST/GET an advance transaction onto an account using the web-service, this will be posted on to the account which is responsible for not only maintaining the ADV balance but also creation of Payable Requisition [AP Txn].

- Ability to disburse the amount for stage funded loan or line accounts using a RESTFul web services.
- Ability to show the successfully posted advances records from web service in Advance Maintenance screen.
- Ability to get the posted advances details using a RESTFul GET service.

2.17.2 Description

If user posts the above web service following process will happen

- All elements will be validated and error messages will be shown in case of error.
- **ADV** txn will be posted with the Advance Amount on Advance Date to that account and shown in Servicing >Transaction History >Transactions.
- AP transactions will be created with provided allocation details and shown in AP Transactions tab under respective radio button.
- If the advance is successfully posted then that record will be shown in Servicing >Advances >Advance Maintenance screen.

An advance Id field is added in Servicing >Advances >Advance Maintenance which will show the system generated unique advance Id.

2.17.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.18 Contract Creation Web Service

2.18.1 Overview

This is a new web service which will create the contract for approved applications. This service can be used as a one of the step in orchestration of straight through processing of application till funding.

2.18.2 Description

- Created a web service to load the contract, select an instrument and calculate payment amount for an application which is in Origination Stage Code "CONTRACT".
- Following validations are part of the new web service.
  - ➢ If the provided Application # is invalid in request, system will show an error message saying "Invalid Application Number".
  - ➢ If the Application is in origination stage code other than "CONTRACT", system will show an error message saying "Application is in << Stage Code>> and loading of contract is not allowed".
  - ➢ If the instrument is already added to contract, System will show an error message saying "Contract Record already exists".
  - ➢ Once the web service is successfully posted, system will do following actions.
    - → First Instrument in Instrument LOV will be selected and load the same.
      If there are no instruments available for selection, system will show an error message saying "No Instrument is Available".
    - → After loading the instrument, decision level parameters will be copied to Contract.
      Following are the mapping details between decision parameters to contract parameters for "LOAN, LINE and LEASE".

      Decision to
      Contract Mapping

      To view, either click on the icon or open from attached documents in left menu.
    - → After copying the parameters, system will perform "Calculate Payment" [Only for Loan and Lease Application] and "Calculate Tax" [Applicable only for Lease Application and only if the system parameter SALES TAX INTERFACE is set to INTERNAL and Sale tax Setup is maintained for INTERNAL Channel].
      Note: Only "Calculate Payment" is performed as part of this web service other options [Calculate Interest Rate, Calculate Term, Calculate Sales Tax (VERTEX) etc.] are not available as part of this web service.
    - → If any parameters are missing as part of calculation system will show the error message saying "Missing <<Parameter>> for payment amount calculation".

Note: This service is not supported for rental based applications.

2.18.3 Seed Data

Refer 'Appendix: Seed Data' chapter.

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2.19 <u>Message Dashboard</u>

2.19.1 <u>Overview</u>

For asynchronous integration, OFSLL use MDB/JMS infrastructure to interface with third-party applications. This infrastructure provides a dashboard with below capabilities:

- Health/Status of configuration
- Display list of messages triggered using MDB/JMS infrastructure
- Re-submit failed messages

2.19.2 <u>Description</u>

- A new tab *OFSLL → Dashboard → System Monitor → JMS Queue* is created to record JMS/MDB Queue Status and Message details.
- *Status* tab in JMS Queue is used to indicate status of JMS/MDB interface.
  - ➤ The *Status* button on the table is used to gather latest status of selected interface. On click of *Status* button a dummy ping message will be sent to check the status of the infrastructure.
  - ➤ The status cycle for JMS/MDB infrastructure follows below life cycle:
    - → "SUBMITTED" to indicated a dummy ping message is put into queue
    - → "RUNNING" once message is consumed by MDB/JMS infrastructure
    - → "STOPPED" once MDB/JMS infrastructure is down

- *Message* tab in JMS Queue is used to record OFSLL messages transmitted using JMS/MDB interface. This dashboard is used to display below:
  - ➤ Statics of total count of Messages submitted, completed and failed. A date filter can be used identify these statistics based on specific date range.
  - ➤ On click of individual JMS/MDB interface, Message details will be displayed in **Message Details**. Failed messages can be resubmitted using **Re-submit** button.

Note: This table will not include Health Check/Ping messages.

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2.19.3 Seed Data

Refer '[Appendix: Seed Data](#)' chapter.

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2.20 Events Enhancement

2.20.1 Overview

Current events framework has limited features to define a new Event and Event outcomes (Action). To overcome these challenges, OFSLL Event Framework is enhanced with following:

- Enable events to be triggered based on Entity change (Insert/Update) than the current Engine based.

- Enhanced support for current list of Event Types and Event Actions. Events feature to be enhanced to other business entities in OFSLL [Business, Customer, producer, Collateral, Dealer, etc.]. Current release only supports Account and Customer Entities. Supported will be added for other Entities in sub sequent releases.

- Single flow for current Online/Batch Event processing.

- Allowed to add Event Type specific criteria during definition of Event criteria.

- Removed restriction of having limited set of batch Application/Account Events.

- Improved usability of loading action parameters using a button click.

- Expose Events Actions using JMS/MDB.

2.20.2 Description

New Events Flow:
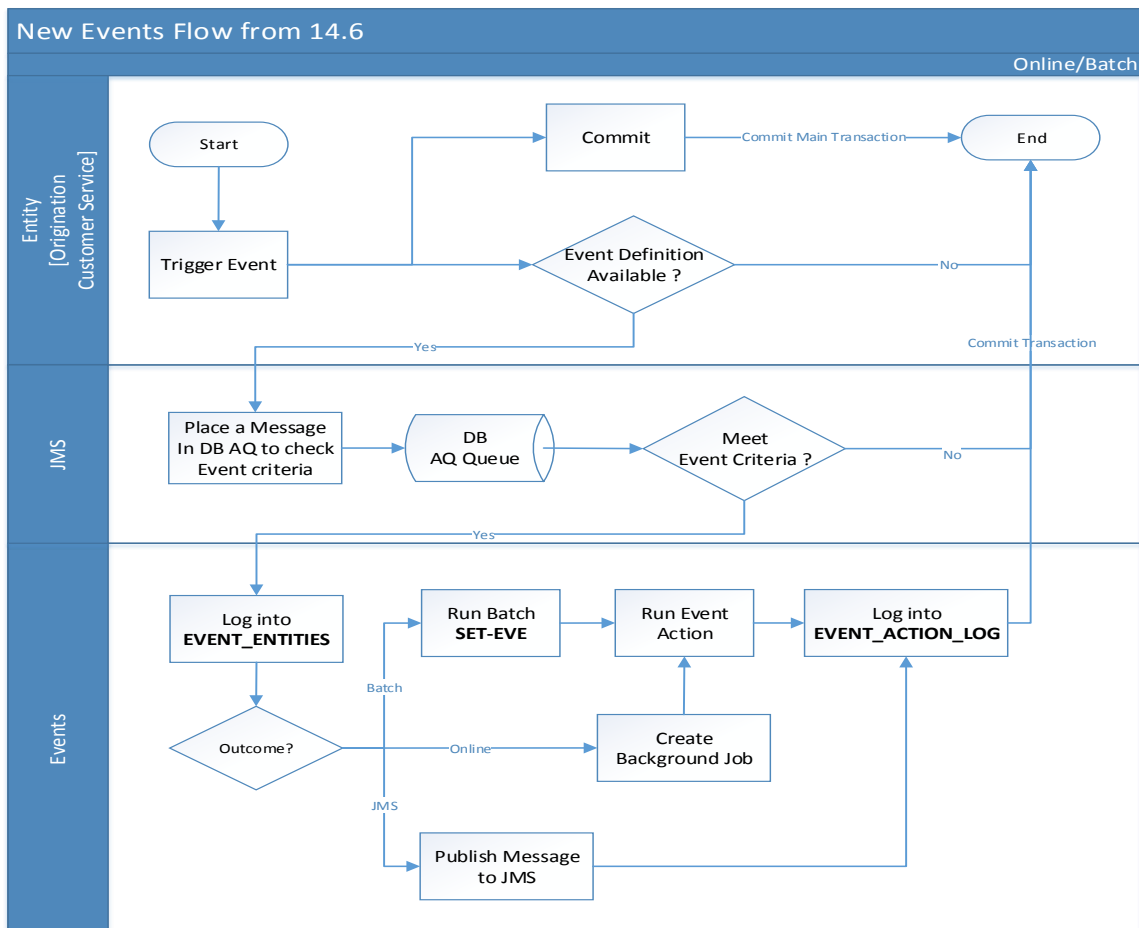
The difference between existing and new Event framework in highlighted in the table below.

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Existing Event Framework	New Event Framework
Engine based framework	Entity based framework. Events are generated based on table data modified using Insert/Update.
Supports only Application/Account Engines	Currently supports only Account/Customer. Support will be added to multiple entities.
Currently system only support 10 batch application/account events	No restriction on number of batch events
In case of online synchronous events, system completes the main transaction only once all the event actions are executed.	All event action executions are asynchronous and will not have impact on main transaction.
Criteria definition is same for all Application/Account Events. System does not allow to define engine specific criteria	Criteria definition is specific to individual Event type
Events are logged into "EVENT_ENTITIES" only in case of Batch.	Single flow for online/batch events
No support for JMS/MDB outcomes to process Event actions externally	Support JMS/MDB Event Actions
Action parameters need to be added manually	Support to automatically load Event Action Parameters using a button click.
OFSLL will publish list of predefined Entities, Events and Actions.	

Note: Starting from 14.6 release, existing Event framework is considered as deprecated and user will not be allowed to add/modify Events using existing framework. The new event framework is currently limited and will be enhanced to support existing use cases in subsequent releases.

To address these changes, Event framework is enhanced with below:

- Existing types are enhanced with Sub code **NEW** to indicate support for new framework.

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- New set of User Defined tables are created to define parameters for each Event Type Criteria and Action Type parameters. There can be multiple user defined tables associated with single Event Type Criteria. These table are linked using user defined table types.

  For example consider parameters of Event Types "EVENT TO PROCESS ACTIONS WHEN NEW REPOSESSION IS CREATED", this requires parameters from ACCOUNTS and REPO_FORECLOSURE table. Below are the list of configurations to be performed by setup user.

- A new lookup EVENT_TYPE_CD is created to list OFSLL supported Events. Events are associated with Entities using Sub Code.

- Based on first there character of Lookup code of event entity type a new user defined table types is added in lookup "FLEX_TABLE_TYPE_CD". Format used for individual Event Criteria table type is "EVENT_<FIRST THREE LETTERS>_PARAMETER_CD". So for above example, the table type is "EVENT_REP_PARAMETER_CD" is maintained in "FLEX_TABLE_TYPE_CD".

- Based on individual table type defined, user defined tables are created to determine event criteria. So for above example, two user defined table type are created for criteria parameters of from ACCOUNTS and REPO_FORECLOSURE table. Care must be taken to provide **View Name** and **SQL Statement** based on table relationship and bind variable.

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View Name ACCOUNTS
SQL Statement ACC_AAD_ID = REP_AAD_ID
AND REP_ID = :1

View Name REPO_FORECLOSURE
SQL Statement ACC_AAD_ID = REP_AAD_ID
AND REP_ID = :1

- A new lookup EVENT_ACTION_TYPE_CD is create to list Event Actions associated for individual Event Types. Sub code of the Event Action Type is used to determine three characters of the Event Types.

- For Event Action parameters, user defined tables definition is straight forward. Only one user defined table is created per Event Action Type. In 14.6 OFSLL only support Event Action type "SEND JMS MESSAGE". This list will be enhanced in sub sequent releases.

- A new batch job **EVEPRC_BJ_100_01** is added in "SET-EVE" to perform batch based events.
- A new tab Events is created in **OFSLL→ Setup → Administration → Events** to defined new Events using enhanced framework.

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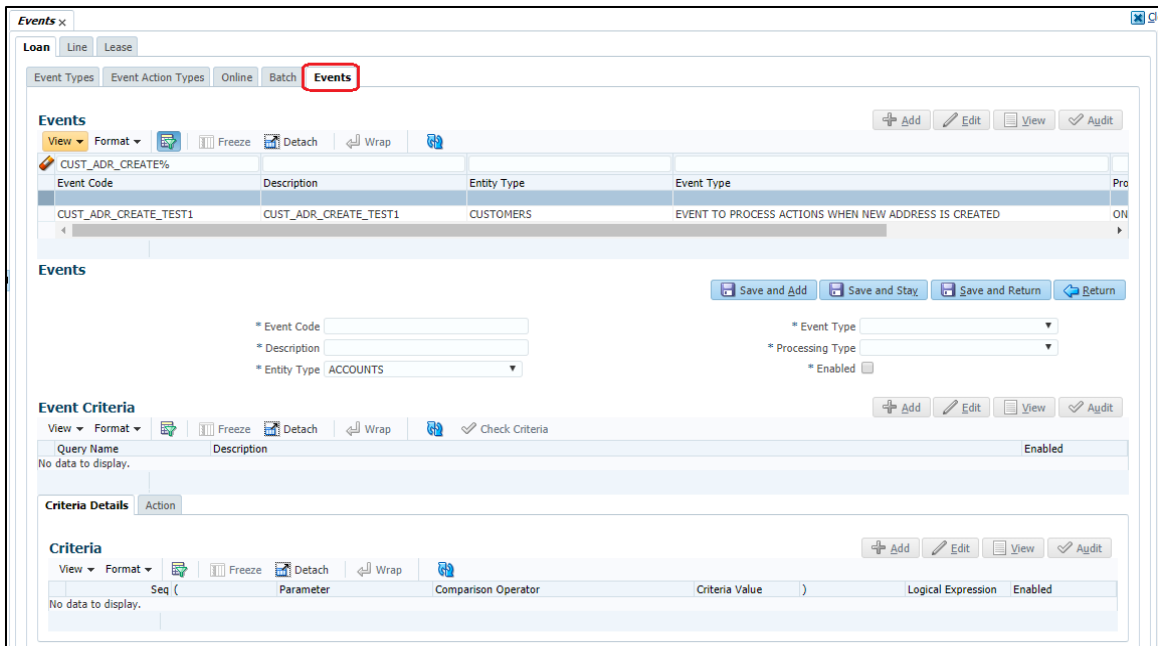
Field Name	Type	Default Values	Comments	Reference
Event Code	A/N	NA	Event definition code is read-only in edit mode Unique	NA
Description	A/N	NA	Event code description	NA
Entity Type	A/N	NA	Event identification Entity	Based on existing lookup EVENT_ENTITY_TYPE_CD Parameters with sub code as NEW will only be displayed.
Event Type	A/N	NA	Event identification Type.	Based on new lookup EVENT_TYPE_CD
Process Type	A/N	Online	Online/Batch	Based on existing lookup EVENT_PROCESS_TYPE_CD
Enabled	Check box	N	Enabled indicator	NA

- A new tab Event Criteria is added Events to define Event Specific Criteria.

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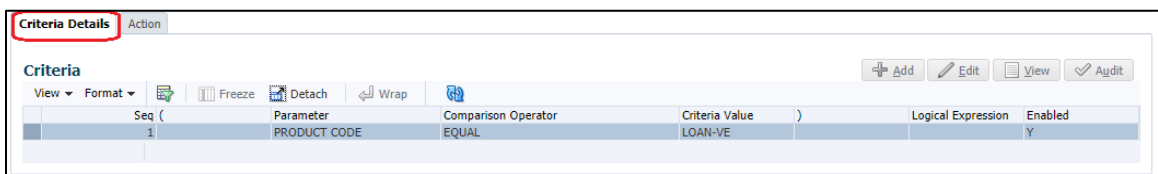
Field Name	Type	Default Values	Comments	Reference
Query Name	A/N	NA	Event criteria definition code is read-only in edit mode Unique	NA
Description	A/N	NA	Event criteria description	NA
Enabled	Checkbox	N	Enabled indicator	NA

- A new Action tab is used to define multiple actions to be executed once event criteria is meet. These action will be executed based on Sequence number. Load parameters button is used to load Action parameters from User Defined Table.

Field Name	Type	Default Values	Comments	Reference
Action Type	A/N	NA	Define action types to be executed.	Based on new lookup EVENT_ACTION_TYPE_CD Sub code is used to determine Event Type the actions code is associated with
Action Code	A/N	None	Displays None for now and will be used for different action types in future	NONE
Seq	Numeric	0	Sequence number of execution	NA
Enabled	Checkbox	N	Enabled indicator	NA

- Action Parameters tab is used to define parameter and values for each action. These parameter values will be populated based on user defined table associated with individual Action Type.

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Field Name	Type	Default Values	Comments	Reference
Parameter	A/N	NA	Action Parameter Description. This will populated from user defined table based on Action code selected	Action Parameter User Defined Table.
Value Type	Dropdown	CONSTANT	Used to indicate if the value has to be inputted during execution or Constant. Currently only Support Constant and will be enhanced in sub sequent releases.	A new lookup EVENT_VALUE_TYPE_ CODE With value CONSTANT
Value	A/N	NA	Parameter Value.	NA

- A new EVETNS MDB queue is created to expose AQ JMS action details into outbound JMS. This MDB is added into JMS Dashboard to record statistics and resubmit failed JMS messages.

- Each JMS message will have below attributes

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Parameter	Description
COMMON_NBR	Entity Common Reference Number. For current release this will have Account Number
EVENT_ACTION_ID	System Generated Sequence
EVE_EVENT_TYPE	Allowed to be changed by user
EVENT_TYPE	Lookup Code of Event Type Code
EVENT_START_DATE	Event Generation Date and Time
EVENT_PROCESS_DATE	Event Process Date and Time
REQUEST_TYPE	Values will be *OUTBOUND*
SUB_TYPE	Values will be *EVENTS*

2.20.3 <u>Seed Data</u>

Refer '<u>Appendix: Seed Data</u>' chapter.

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2.21 Oracle Internet of Things [IOT] Integration Cloud Service

2.21.1 Overview

Equipment leasing companies often find it difficult to locate and track that lessee is using the expensive leased assets as per the contractually agreed terms and conditions only. It is difficult to employee individuals for this purpose in case of Lessors with large portfolios as the cost and effort prohibits the same.

Oracle's solution to this common equipment leasing industry pain point is to provide the out of the box integration of Oracle IOT Asset Monitoring Cloud service with Oracle Financial Services lending and Leasing so that IOT asset monitoring cloud service provides real time information on asset location, health, utilization etc. that can be converted to an actionable item for OFSLL.

For example as per the lease contract, if the equipment is only allowed to use at a specific location and if the lessee violates the same, it can be immediately reported to OFSLL and Lessor can take immediate action. Similarly, if the asset usage hours is fixed per day and any excess usage can be immediately reported so that corresponding penal actions can be initiated in the form of levying a penalty fee to the account.

OFSLL Integration with Oracle Internet of Things [IOT] Cloud service. OFSLL integrated with IOT CS via Oracle Integration Cloud Service [ICS].

- Ability to send the Alert to OFSLL when an event happens in IOT Asset Monitoring
- Assets need to be defined in the IOT Asset Monitoring and linked to OFSLL account.
- Alerts need to be defined in IOT Asset Monitoring and when this Alert is triggered, same will be called to OFSLL Web Service End point.

Assumption

The assumption is IoT CS is configured with required asset that is mapped to an OFSLL account.

2.22 GDPR Changes

2.22.1 Overview

As most of the organizations, share the data to the third party systems, non-production environments and market researchers. There is need to restrict the customer Personally identifiable information (PII) is not shared to any 3rd party system.

2.22.2 Description

- Removed the PII Data from the Logs.
  - The logs are being written through the debug logs mechanism. As part of GDPR changes ensured that, no personally identifiable information are logged in debug logs. After this change, debug logs will not contain any personally identifiable information such as Applicant First Name, Applicant Last Name, Address, SSN etc.,.
- Masked the Personally Identifiable Information in following Web Services that fetches data from the System based on the user responsibility. As part of this change, below web services will have the Personally Identifiable Information Masked when GET Web Services are called.
  - Application Details
  - Fetch ACH
  - Customer Credit Limit
  - Business Credit Limit
  - Get Invoice Details
  - Customer Preference
- PII Data that are sent to external systems are tagged in the OFSLL System. The Tagging will be done with the Unique ID of the Entity.
  - For Example, if Customer Details are being sent to an external system, the tagging will be done in OFSLL system with the Key column ID (Ex: Customer ID, Account ID) along with the name of the interface to which the PII details are sent. The Tagging is available for Account/Application/Customers/Address. In this release, the tagging is done for Generic Recovery Interface.
- As part of this enhancement, the logged in user will be able to view the debug files that pertains to him/her and not of other users.
- As a part of this enhancement, all the queried in Report Data Models are modified to use a new set of Report views. In this release only the reports related to Servicing are modified.

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2.23 <u>Metro II Changes for Lease</u>

2.23.1 <u>Overview</u>

Currently, OFSLL reporting the Lease Accounts to metro ii but there are some fields system is not reporting or reporting wrongly.

In this release, OFSLL will report it correctly and also correct the reporting account information.

2.23.2 <u>Metro II changes for lease</u>

<u>Changes in Base/12</u> **(Highest Credit or Original Loan Amount) field**

- Currently system reporting the value there in ACCOUNTS.ACC_CRB_HIGHEST_BAL_AMT column which is updated when user funding the lease application.
- This filed is reported without any interest, but this account column was updating with total of base payments (Depreciation Value + Rent Charge).
- System now report this filed as below:
  - ➢ If the account Calculation Method is 'Rent Factor' – then reports with 'Depreciation Value'
  - ➢ If the account Calculation Method is 'Interest Rate' and
    - → If Lease Type is 'Operating' – reports with 'Depreciation Value'
    - → If Lease Type is 'Direct Finance' – reports with 'Adjusted Capitalized Cost'.
  - ➢ Post termination with buyout indicator 'Y', reports it with current 'Adjusted Capitalized Cost'

<u>Changes in Base/15</u> **(Scheduled Monthly Payment Amount)**

- Currently system reporting the current billing amount. Now system will report the last bill amount for all type of accounts

<u>Base/17A (Account Status)</u>

While reporting 95: (FAQ 63 – page 231)

- Currently system will report if account is Active and Repo Ind is 'Y' and if collateral is PERSONAL PROPERTY VEHICLE with status is Voluntary Repo. If the account status is Termination, system shouldn't report '95'. – is now supported.
- Date of First Delinquency = Repo condition start date.
- If the consumer is not responsible for the remaining balance on the account after the sale of the merchandise or there is no deficiency balance, Report

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- ➢ Account Status 95 with a
- ➢ Current Balance and Amount Past Due of zero.
- ➢ Date Closed as the date the consumer voluntarily surrendered the merchandise.[Repo condition start date]
  - → To address this, system will refer a new condition '**Not Liable for Payment'** which is to be opened manually or using ACCOUNT EVENT NOTIFICATION non-monetary transaction with new event type as 'Customer Not Liable for Payment'.
  - → System will post the following call activity
    Action: VRP
    Result: Customer Not Liable for Payment
    Condition: REPOSSESSION
- ➢ While posting this new event, if there is an Active 'Repo' condition exist for an account and asset repo indicator is 'VOL' or Metro II account status us '95' then only system allows to post. If not shows an error, 'Asset is not repossessed *Voluntarily'*.

Base/19 (Special Comment Code) reporting (page 130 - Exhibit 7)

- Provided a new 'Event Type' LOV parameter to 'Termination' transaction, if the account type is 3A (Auto Lease) or 13 (Lease Non-Auto) then following bellow call activity will be posted on to the account with validation

Dt / Follow up Date:	Termination Txn Date
Action:	QR
Result:	OSPCC
Contact:	Null
Reason:	As per the Event Type
Condition:	None / OSPCC

- If the OSPCC condition is open on the account then post it as OSPCC (to update the condition start date) if not None.

  Note: Account Type is linked to a product

#	Event Type	Reason Code
1	Prepaid Lease	BS Transaction date is less than the maturity date (either buyout indicator Y/N) and No payments are due.
2	Full Termination/Balance Owing	BD Transaction on or after the maturity date (either buyout indicator Y/N) and if the current balance is greater than zero
3	Full Termination/Status Pending	BB

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#	Event Type	Reason Code
4	Full Termination/Obligation Satisfied	BC if Current Balance = 0 (user expected to post Paid off after this)
5	Early Termination / Status Pending	BE
6	Early Termination / Obligation Satisfied	BF if Current Balance = 0 (user expected to post Paid off after this)
7	Early Termination / Balance Owing	BG
8	Early Termination/Insurance Loss	BH
9	Involuntary Repossession	BI If the collateral repo type (ASE_REPO_FORC_TYPE_CD) other than VOL and active REPO condition exist.
10	Involuntary Repossession / Obligation Satisfied	BJ If the collateral repo type (ASE_REPO_FORC_TYPE_CD) other than VOL and active REPO condition exist.
11	Involuntary Repossession / Balance Owing	BK If the collateral repo type (ASE_REPO_FORC_TYPE_CD) other than VOL and active REPO condition exist.

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3. Appendix: Seed Data

Seed data for all the impacted modules against specific enhancement is available in the below attached document.

Seed Data
14.6.0.0.0

To view, you can either click on the icon or open from attached documents in left menu.

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4. Patches and Bugs

Bug Id	Bug Description	Fix Description
NA	NA	NA

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5. Security Fixes

-NA-

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6. Limitations and Open issues

-NA-

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7. Components of the Software

7.1   Documents accompanying the software

The various documents accompanying the software are as follows:

- Patch Release Notes
- Patch Installation Guide
- Installer Kit
- User Manuals and Installation manuals - These can be accessed from the link
  https://docs.oracle.com/cd/F12052_01/index.htm

7.2   Software Components

Software Components of this patch release are as follows:

- Core
  - UI Components Ear file (JSF, XML, XLF, JSFF)
  - Stored Procedures (Packages, Views, Java Stored procedures)
  - Reporting Components(Data models(xdm), Reports(xdo, rtf))
  - BIP / canned reports
- Interface
  - Stored Procedures (Packages, Views, Types)
  - The WSDL files for the service supported
  - XSD Structure (dictionary) for the web service
  - Configuration files for the web service
  - Java classes for the web service
  - The service documents – describing the services
  - Extensibility Document – Describes customization for the services.
- Installation utilities
  - Script based installation for Database components
  - Installation documents for Database, UI, Web services

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8. Annexure – A: Environment Details

Component	Deployment option	Machine	Operating System	Software	Version
Oracle Financial Services Lending and Leasing	Centralized	Application server	Oracle Enterprise Linux 6.7+ & 7.0 (64 Bit) and Sun SPARC with Oracle Solaris 11 (64 Bit)	Oracle WebLogic Enterprise Edition(Fusion Middleware Infrastructure installer – includes ADF and RCU)	12.2.1.3.0
				Oracle JDK	1.8.0_192
				Application Development Framework	12.2.1.3.0
		Database Server		Oracle Database Enterprise Edition	12.1.0.2.0 / 12.2.0.1.0
		Reporting Server		Oracle Business Intelligence Publisher	12.2.1.3.0
		Client Machines	Windows 7 (Patch Version 6.1)	Microsoft Internet Explorer (64 Bit)	11.0.9600.19155CO
				Mozilla Firefox (32 Bit)	60.3.0esr
				Google Chrome (64 Bit)	70.0.3538.110
			Windows 10 (Patch Version 1703)	Microsoft Edge (64 Bit)	41.16299.785.0
				Mozilla Firefox (64 Bit)	63.0.3
				Google Chrome (64 Bit)	70.0.3538.110
			Mac OS X	Apple Safari (64 Bit)	12

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9. Annexure – B: Third Party Software Details

Licensor Name	Licensed Technology	Version
Apache	SOAP	2.3.1
Jason Hunter & Brett McLaughlin	JDOM	2.0.6
Apache	Ant	1.10.1

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