

Regression Testing Tool  
Oracle Financial Services Lending and Leasing  
Release 14.6.0.0.0  
Part No. F12052-01  
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## Glossary

<b>Term</b>	<b>Description</b>
OFSLL	Oracle Financial Services Lending and Leasing
DLS	Oracle Daybreak Lending Suite
BI	Business Intelligence Publisher
XML	Extensible Mark-up Language
UI	User Interface
WSDL	Web services Description Language
API	Application Programming Interface
SQL	Structured Query Language

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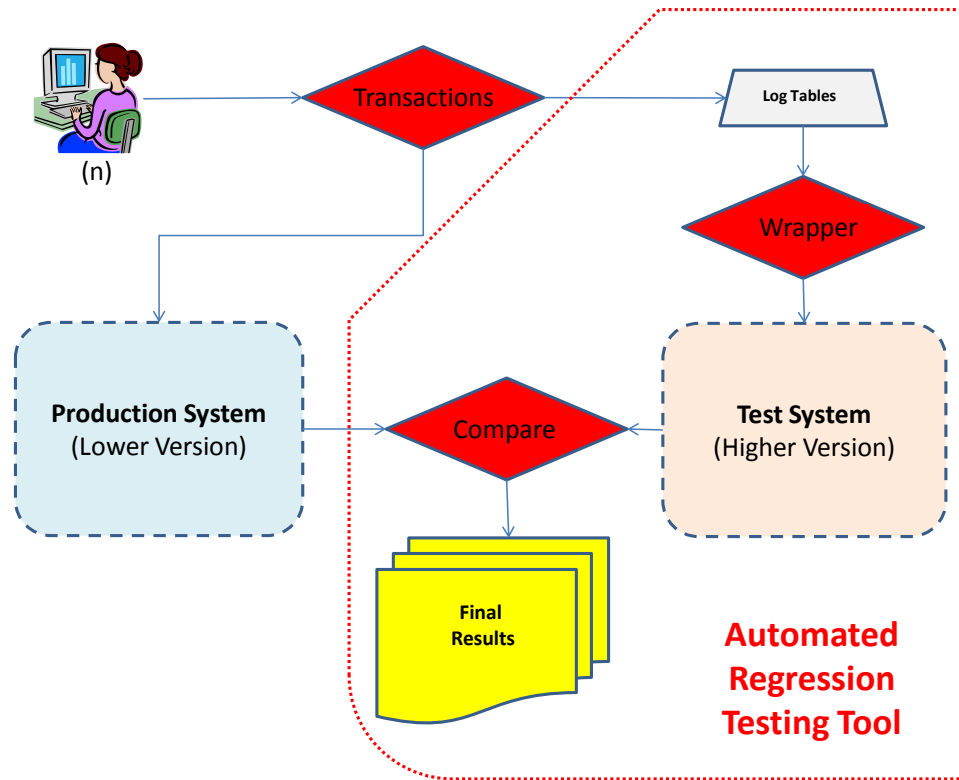
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# 1. Regressions testing tool

The purpose of this document is to outline the high level requirements of the scope of the Testing tool for regression tests during DLS/OFSLL upgrades by performing a parallel testing between a lower version of DLS/OFSLL (production) and a higher one (test).

## 2. Scope

The testing tool will log certain operations done in the production system and replicate them in the Test system. This will enable parallel testing by comparison of the production and test systems, specifically with regards to the General Ledger transactions. The aim is not to replicate user keystrokes in the Production system but instead is to ensure that the eventual Posted values are captured in the Test system in the same way they were in the Production system.



This tool was designed to work for all DLS/OFSLL upgrades, independently of versions and customizations.

The Testing Tool covers the Origination (App Entry, Funding, Account Creation) and Customer Service, as detailed below:

### 2.1 Origination

The testing tool will perform the following: -

#### **App Entry:**

1. Applications entered in Production on that day will be replicated in the Application tables of the Test system.
2. The application will pass through the Data Entry and Pre screen edits

3. The application will pull the Credit bureau as defined by the current system parameter configuration
4. The application will be placed in a New: Review Required status

#### **Funding:**

1. All applications funded in Production on that day will be replicated in the Test environment. The application in the Test environment will be funded using the same values that were used to fund the application in Production.

#### **Assumptions/Restrictions:**

- Changes to the application values by the users in the Underwriting screen will not be replicated in the Test Environment.
- Intermediate steps between Application Entry and Funding viz. Fax/Letters on Status change, NADA pulls will not be replicated in the test system. This will require manual testing efforts. (The final values in the Production system will be used to fund the application)
- As part of the manual testing the user will not set the Application to Approved: Funded since it is possible that the values used by the user in the test system will be different from the values used in Production resulting indifferent GL entries.
- As part of the manual testing, the Fax numbers of all producers must be set to an internal fax number to avoid fax documents being set back to producers.

## **2.2 Customer Service**

The testing tool will perform the following: -

Monetary Transactions posted on Accounts in Production will be replicated in Test for that particular day. This will allow comparison of the Transaction history on Accounts in the Test and Production instances. To replicate the monetary transactions, the Testing tool will perform the following

1. Payments applied to Accounts in Production will be replicated in Test
  - Payment batches and details will be created in the replicated in the test system (TXNS\_GROUP\_TEMP, TXNS\_TEMP table will be created)
2. Monetary transactions posted on Accounts in Production will be replicated in Test
  - Corresponding entries in the Customer Service > Maintenance tab will be available (BATCH\_MODE\_TXNS, BATCH\_MODE\_TXNS\_TEMP)
3. Assessment of Work Order expenses on an Account will be handled as a monetary transaction on an account.

#### **Assumptions**

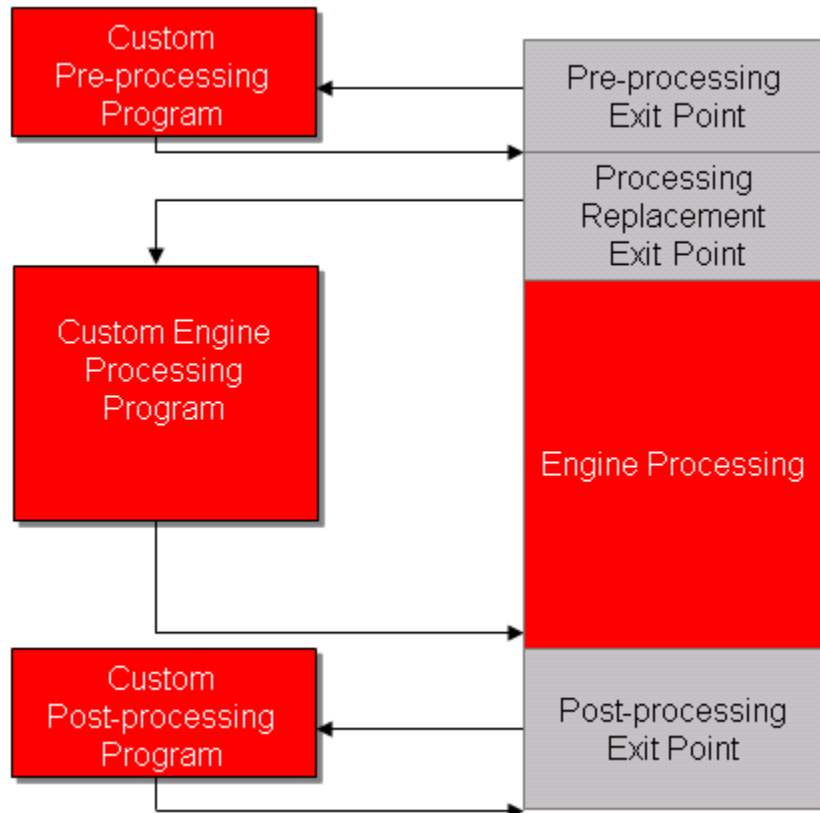
- Work Order actions will not be replicated. Work Order Expenses assessed on an account will be handled by the monetary transactions replication.
- A one-time refresh at the beginning of the testing will be done instead of a daily refresh. The only caveat would be that any errors, that affect data found during the testing, would remain in the database till the fix is received.
- The need for subsequent refreshes during the testing period will be discussed.

- Test environment Setup will be in sync with the setup in the Production environment. Setup changes to the production environment during the day will be replicated in the Test environment, before the Testing tool is run for that day.

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### 3. Architecture / Technical Design

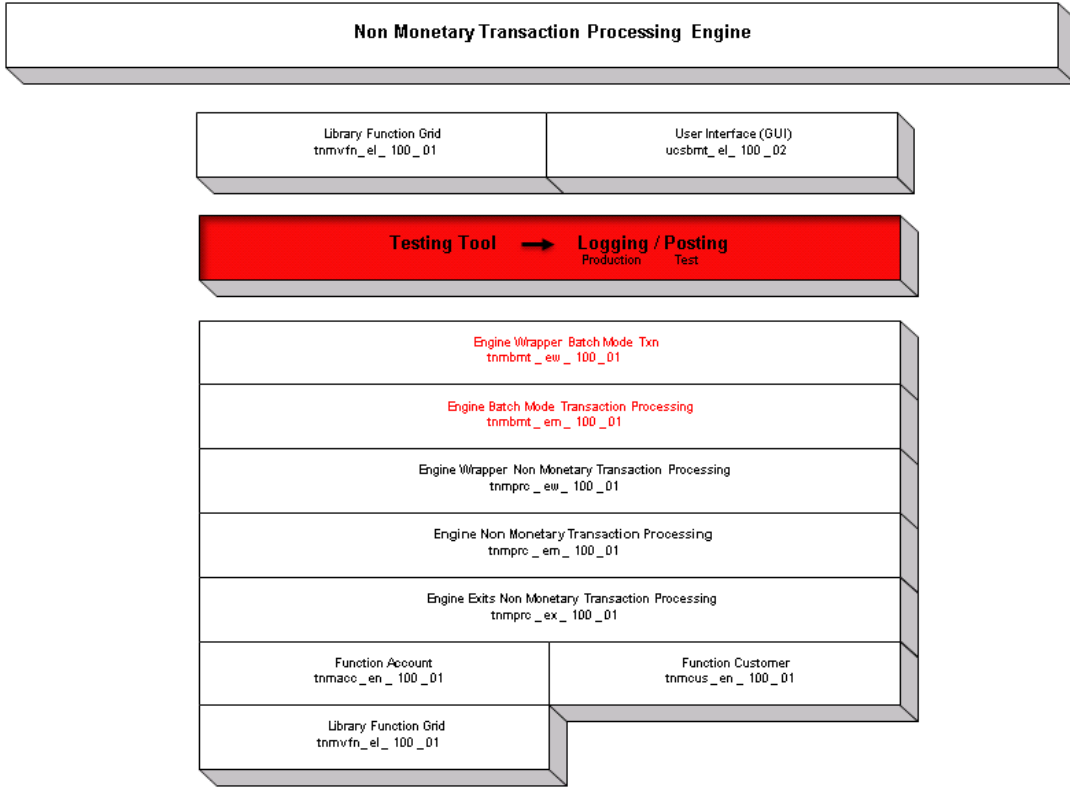
The Testing Tool was only possible due to OFSSL architecture, based on a wrapper- engine model. Like in OFSSL customizations, the Testing Tool takes advantage of the existing Exit Points to log and re-post the actions done by the users, allowing an automated parallel testing between the Production (lower version) and Test (higher version) environments of OFSSL.



(Exit Point Diagram)



The next two Diagrams show where in the Transaction Processing Engine the Testing Tool was introduced:



Monetary Transaction Processing Engine																	
Batch Job Accrual bnacrl_bj_100_01	Batch Job Billing bnbdll_bj_100_01	Batch Job Charge Off bnchgo_bj_100_01	Batch Job First Pmt deduction bnfded_bj_100_01	Batch Job Rate Change bnrat_bj_100_01	<table border="1"> <tr> <td>Wrapper Advance bnadv_ew_100_01</td> <td>Wrapper Advance bnadv_ew_100_02</td> </tr> <tr> <td>Wrapper Payment bnprmt_ew_100_01</td> <td>Wrapper Payment bnprmt_ew_100_02</td> </tr> <tr> <td>Wrapper First Pmt Refund bnfrfr_ew_100_01</td> <td>Wrapper Payment bnprmt_ew_100_03</td> </tr> <tr> <td>Wrapper Batch bnbmt_ew_100_01</td> <td>Main Engine Batch bnbmt_ew_100_01</td> </tr> </table>					Wrapper Advance bnadv_ew_100_01	Wrapper Advance bnadv_ew_100_02	Wrapper Payment bnprmt_ew_100_01	Wrapper Payment bnprmt_ew_100_02	Wrapper First Pmt Refund bnfrfr_ew_100_01	Wrapper Payment bnprmt_ew_100_03	Wrapper Batch bnbmt_ew_100_01	Main Engine Batch bnbmt_ew_100_01
Wrapper Advance bnadv_ew_100_01	Wrapper Advance bnadv_ew_100_02																
Wrapper Payment bnprmt_ew_100_01	Wrapper Payment bnprmt_ew_100_02																
Wrapper First Pmt Refund bnfrfr_ew_100_01	Wrapper Payment bnprmt_ew_100_03																
Wrapper Batch bnbmt_ew_100_01	Main Engine Batch bnbmt_ew_100_01																
Batch Account Activation bnact_bj_100_01	Batch Job Account Close bnacis_bj_100_01	Batch Mode Tin Post bnbmt_bj_100_01	Batch Job Month To Date bnmtd_bj_100_01	Batch Job Termination in Progress bnlip_bj_100_01													
Batch Job Anniversary bnann_bj_100_01	Batch Job Payment Posting bnppmt_bj_100_01	Batch Job Schedule for Chgoff bnsch_bj_100_01	Batch Job Promotion bnppm_bj_100_01	Batch Job YTD bnpytd_bj_100_01													
Batch Job First Payment Refund bnprfr_bj_111_01	Batch Job Advance Posting bnadv_bj_112_01	Batch Job Late Charge bnlc_bj_100_01	Batch Job Promotion Cancel bnprm_bj_100_03														
<b>Testing Tool → Logging / Posting</b> Production Test																	
Engine Wrapper Monetary Transaction Processing bnprc_ew_100_01																	
Engine Monetary Tin Processing bnprc_em_111_01	Engine Monetary Tin Processing bnprc_em_112_01	Engine Monetary Tin Processing bnprc_em_121_01	Engine Payment Processing bnprmt_em_100_01	Engine Payment Processing bnprmt_em_100_02	Engine Payment Processing bnprmt_em_100_03	Engine Payment Processing bnprmt_em_100_04	Engine First Pmt Refund Processing bnprfr_em_111_01	Engine Advance Processing bnadv_em_100_01									
Engine Exits Monetary Transaction Processing bnprc_ex_111_01, bnxxx_ex_111_01, bnxxx_ex_112_01, bnxxx_ex_121_01 (xxx = engine function)						Engine Exits Non Performing Transactions bnprpt_ex_111_01											
Function Accrual Stop bnacc_en_100_01	Function Account Close bnacc_en_100_01	Function Credit Bureau bnacrb_en_100_01	Function Credit Refund bnacrf_en_100_01	Function Dlg Counter bnacd_en_100_01	Function Delinquency bnadq_en_100_01	Function Error Processing bnerr_en_100_01	Function Error Processing bnerr_en_100_02	Function Expense Processing bnexp_en_100_01	Function Payable bnfap_en_100_01								
Function Fee bnfee_en_100_01	Function Fee Calc bnfee_en_100_01	Function FTP bnftp_en_100_01	Function Funding bnfun_en_100_01	Function GL bn gla_en_100_01	Function Interest bnint_en_100_01	Function Interest (Calculation) bninc_en_100_01	Function YTD bnpytd_en_100_01	Function MTD bnmtd_en_100_01	Function Insert Tin bnitc_en_100_01								
Function Advance bnadv_en_11n_01	Function Advance (Before and After) bnadv_en_11n_02	Function Anniversary bnann_en_11n_01	Function Anniversary (Before and After) bnann_en_11n_02	Create Related Txns bnocr_en_11n_01	Create Related Txns (Before and After) bnocr_en_11n_02	Function Due Date bnaddi_en_11n_01	Function Due Date (Before and After) bnaddi_en_11n_02	Function Extension bnext_en_11n_01	Function Extension (Before and After) bnext_en_11n_02								
Function Insurance bnins_en_11n_01	Function Insurance bnins_en_11n_03	Function Maturity bnmat_en_11n_01	Function Payment bnprmt_en_11n_01	Function Payoff bnprmt_en_11n_01	Function Payment (Before and After) bnprmt_en_11n_02	Function Promotion bnprm_en_11n_01	Function Promotion (Before & After) bnprm_en_11n_02	Function Rate Change bnrat_en_11n_01	Function Rate Change (Before and After) bnrat_en_11n_02								
Function Reschedule bnpsc_en_11n_01	Function Reschedule (Before and After) bnpsc_en_11n_02	Function Securitization bnsec_en_11n_01	Function Status Change bnstls_en_11n_01	Function Status Change (Before and After) bnstls_en_11n_02	Function Statement bnstm_en_11n_01	Update Account bnupdt_en_11n_01	Function/Validate Other bnvald_en_11n_01	Function Reschedule bnpsc_en_111_04	Function Reschedule (PC2SI) bnpsc_en_111_05								
Function Credit Limit bncl_en_112_01	Function CTD bnctd_en_112_01	Function Insurance bnins_en_112_01	Function Loss Gain bnlgs_en_121_01	Function Lease Riv bnlrv_en_121_01	Function Rent bnrent_en_121_01	Function Sale of Asset bnsoa_en_121_01	Function Tax bnntax_en_121_01	Function Terminate bntrm_en_121_01	Function Receivable bnrcv_en_100_01								
Function Due Date (Escrow) bnaddi_en_111_03	Function Statements (Escrow) bnstm_en_111_03	Function Payments (Escrow) bnprmt_en_111_03	Function Status (Escrow) bnstls_en_111_03	Function Reschedule (Escrow) bnpsc_en_111_03	Function Reschedule (Escrow) bnpsc_en_111_05	Function Escrow Transactions bnesc_en_111_01	Function Non-Performing Transactions bnnpf_en_111_01	Function Non-Performing (Before & After) bnnpf_en_111_02	Function Dealer Loss Reserve bnrls_en_111_01								
Function Insurance Processing (Before and After) bnins_en_111_01	Function Insurance Processing (Before and After) bnins_en_111_02	Function Insurance Processing (Refund) bnins_en_111_03	Function Rate Change Processing (BackDated) bnrat_em_100_02	Function Rate Change Processing (Before and After) bnrat_en_111_02	Function Billing Processing (Stage Funding Draw Period) bnbaw_en_111_01	Function Stage Funding Draw Period (Before & After) bnbdw_en_111_01	Function Billing Parameters (Change Parameters) bnblp_en_112_01	Function Rate Processing (Soldier & Sailor Act) bnrcr_en_11n_01	Function Rate Processing (SCRA) (Before & After) bnrcr_en_11n_02								

The Testing Tool is divided in 3 main processes:

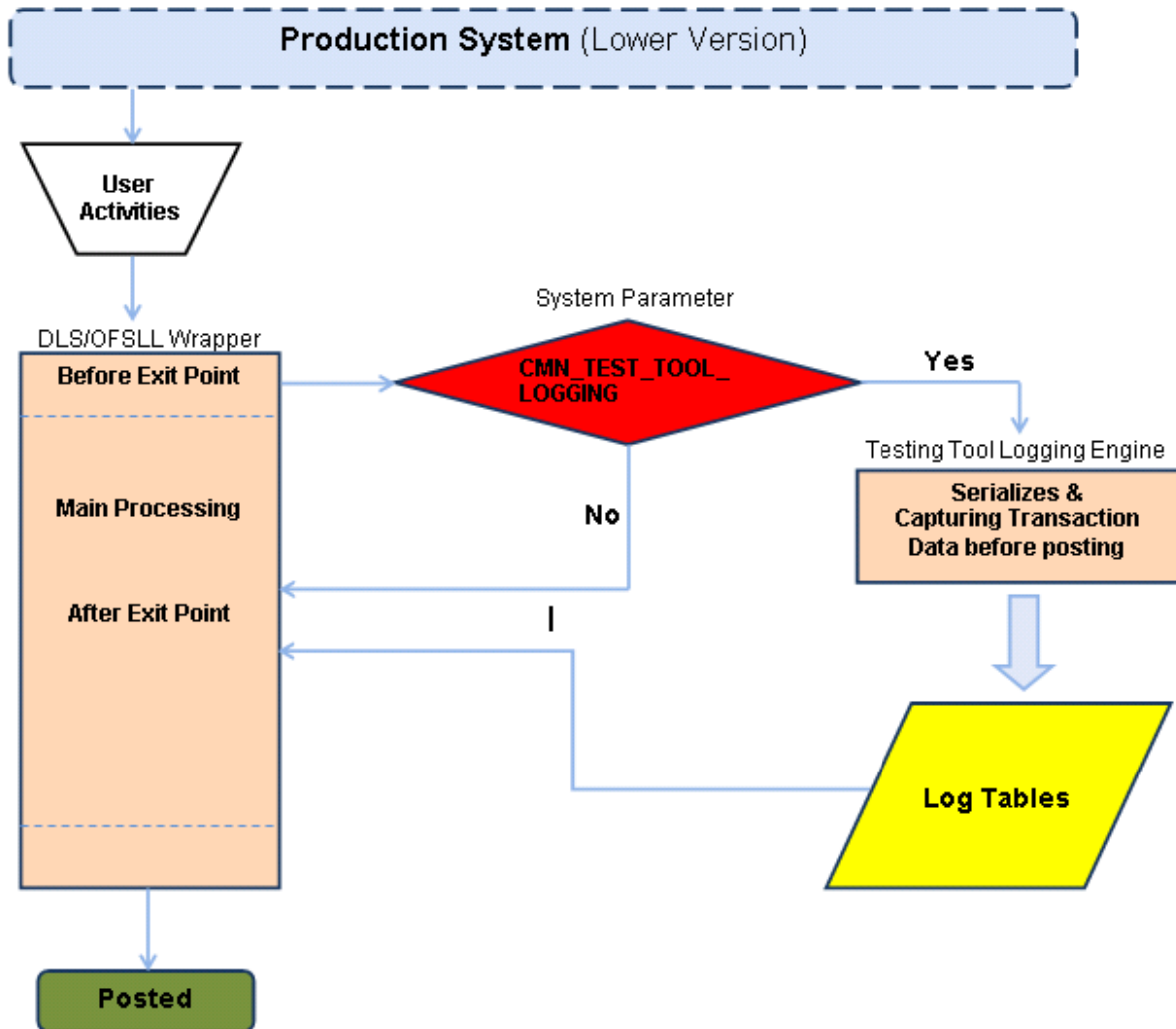
➤ **Logging:** Transactions done by users in Production environment  
CMN\_TEST\_TOOL\_LOGGING (Y/N)

➤ **Posting:** done sequentially and automatically by the Testing Tool in Test environment

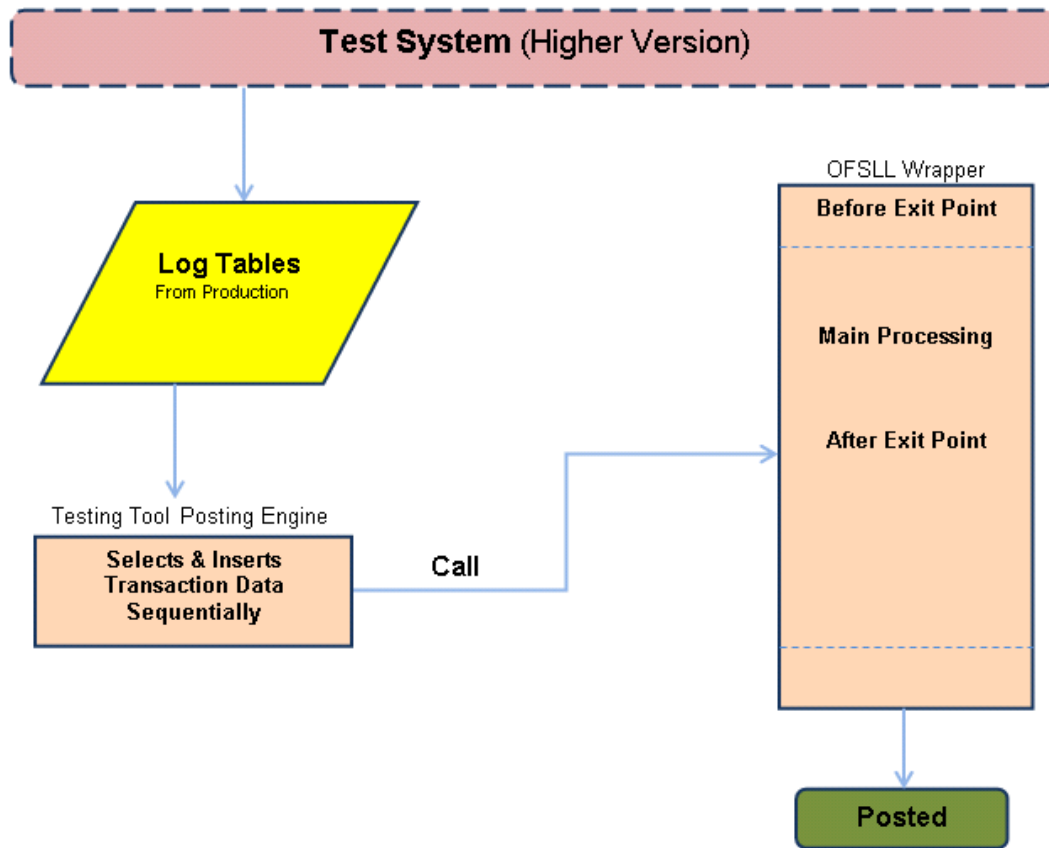
➤ **Reporting:** Comparison between Production and Test Environments

## I. Logging: Transactions done by users in Production environment

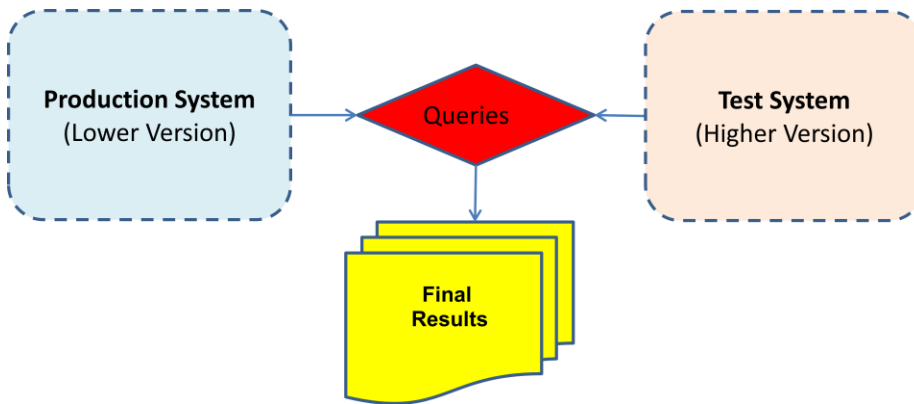
The logging process in Production environment can be turned on/off by setting the System Parameter `CMN_TEST_TOOL_LOGGING`. When its value is "N" system will behave normally. When its value is "Y", the system will log all the transactions done by the users.



Posting: Done sequentially and automatically by the Testing Tool in Test environment



## Reporting: Comparison between Production and Test Environments



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## 4. Steps to Clone Base OFSSL Environment

1. Copy x\* packages and so from production to test after patch up of test schema. (some of these objects in production are newer versions than ones in upgrade patches.)
2. Perform export from production schema.
3. Confirm that CMN\_SERVER\_HOME path is identical between test and production servers.
4. Run 'alter table' and 'alter index' scripts against production schema.
5. Run 'compare schema' scripts between the production and test schemas. Reconcile differences.
6. Perform export (no data) from test (upgraded) schema.
7. Perform import (ignore=yes) on production schema from step five's export. Confirm that packages, views, and types are correct versions.
8. Perform export from test (upgraded) schema of 'setup' tables (LESS producers tables!).
9. Copy schema specific system parameters values from production schema
10. Truncate 'setup' tables on production schema.
11. Perform import on production schema from step seven's export.
12. Overlay system parameters value from step 8
13. Create backup copies of folders in the CMN\_SERVER\_HOME tree on production app server.
14. Copy CMN\_SERVER\_HOME tree from test to production app servers. Consider results of step two.
15. Copy any other patch objects (.so's, etc.) into production environment. (If step 1 is done, we can copy without risk of overwriting newer versions in prod)
16. Restore any X\* packages necessary. (if step 1 is done, we can copy without risk of overwriting newer versions in prod).

## 5. Automated Testing Procedure

Following is the 'suggested' sequence of steps that would need to be performed on a daily basis as part of the 'Automated Testing'

<b>Day 1</b>
Test Database to be refreshed with Production values *
1. Truncate the Log tables in Production
2. Logging is Turned On in Production after last job has completed
Cut of time for manual transactions/user activities in the Production Environment. Logging by testing tool will be turned off.
1. Take a Production database snapshot (S1) of the required tables
2. Ensure sequences on test match sequences on Production (for applications and accounts)
3. Dat files and log tables are moved to the Test database
4. Testing tool is Run on Test instance (Ensure previous files are removed)
Comparison/Validation scripts are run against S1 and the Test database. Report (R1) is generated. (This gives us the comparison before the jobs are run)
A copy of input file in Production (lockbox) should be available in Test
Batch jobs are run (Batch job setup is identical to production) on both Test & Production
Take a Production database snapshot (S2) of the required tables
Comparison Scripts are run against S2 and the Test database. Report (R2) is generated. (This gives us the comparison before the jobs are run)
<b>Day 2</b>
Validates R1 & R2 and reports discrepancies to OFSLL
Investigate the discrepancies. Some may be reconciled and some may require a fix
Manual testing proceeds in the interim
Next run is planned

Test Database to be refreshed with Production values.

\* Refresh Test database

**Example:** To run the testing tool in the Test environment on 4/23, a snapshot of the Production database AFTER the batch jobs have completed on the morning of 4/23 and before any other user activity for 4/23 begins needs to be taken. This snapshot will be used to refresh the test database for the testing tool to be run on the evening of 4/23.



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## 6. Steps to Run

	<b>On production environment</b>
1	Turn off Logging (after SET-LBT3)
2	Take snapshot of prod before end of day batch jobs have run
3	Remove old .dat files
4	Run SET-TST1->GET APPLICATION DATA to create the .dat files
5	Move .dat files to test system
6	Move log tables to test system (execute steps 2-6 on test environment as listed below)
7	Run batch jobs
8	Take snapshot of prod after end of day batch jobs have run

	<b>On Test environment</b>
1	Refresh from backup of Production data.
2	Run after_refresh_before_import.sql – This steps needs to be executed ONLY for a fresh export-import.
3	Run all_refreshes.sql
4	Run before_import_log.sql
5	Fetch the log tables
6	Copy the .dat files from the production environment.
7	Run after_import_log.sql

	<b>Tool execution (on Test)</b>
1	Reset the sequences (reset_sequences_origination_log.sql)
2	Run Jobs under SET-TST1

	APPLICATION DATA LOAD
	FUNDED DATA LOAD
	GENERATE ACCOUNTS FOR TESTING TOOL
3	Run SET-TST2
4	Run Testing Tool reports - save results (Test before EOD)
5	Turn the Scheduler on - Run the required batch jobs
6	Run Testing Tool reports - save results (Test after EOD)
7	Compare the 3 reports extracted during the process

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## 7. Validations and Checks

<b>Before txns posting</b>	
	Set logging parameter to 'N'
	Turn scheduler off on Test system
	Ensure that setup tables are not truncated before refresh (only in case of a new refresh).
	Ensure that jobs, job_sets, job_threads and job_buckets are copied over from Prod onto test (only in the case of new refresh).
	Make sure that the batch jobs are setup the same in Prod and Test.
	Ensure sequences are in sync with Production
	Bump up sequences - recreate sequences
	Ensure that the Test specific setup scripts are run for 1) all seed data 2) DML scripts to create data in the new tables
	Check GL post date
	Check log tables have just one day's transactions
	Query by txn_tcd_code, check numbers match on Prod and Test
	Drop index TXNT_LOG_UDX
	Make sure that the batch jobs have no sequence numbers overlapping - the scheduler might not start because of this.
	Run all the DML scripts - for seed data and others
	Check for database locks on both test systems
	Check run_dt_next on all batch jobs - should be updated correctly

## 8. Comparing Results

Once the tool run, we will be able to start comparing the results. Below is an example of a high level results extracted from a Production and a Test environment, where the tool replicated all the user actions executed during one day.

PRODUCTION			TEST	
TXN_TCD_CODE	SUM(TXN_AMOUNT)		TXN_TCD_CODE	SUM(TXN_AMOUNT)
ACCRUAL_STOP	0		ACCRUAL_STOP	0
ACC_MAINT_MONETARY_CBT	-1		ACC_MAINT_MONETARY_CBT	-1
ACTIVE	0		ACTIVE	0
ADV_RECOURSE_CHGOFF_CBT	5.25		CHGOFF	0
ADV_WAIVE	7		CREDIT_REFUND_REV	6312.85
CHGOFF	0		DDT	29034.13
CREDIT_REFUND	2875.01		DDT_REV	12494.97
CREDIT_REFUND_REV	6762.65		ERPO	15262
DDT	403310.84		ERPO_REV	855
DDT_REV	12494.97		ERPO_WAIVE	90
ERPO	18762		ERPO_WAIVE_REV	5
ERPO_REV	4355		ESVC	175
ERPO_WAIVE	108.42		ESVC_REV	75
ERPO_WAIVE_REV	5		EXTENSION	606.9

ESVC	175		EXTENSION_	0
ESVC_REV	75		REV	
ESVC_WAIVE	0.2		FEXT	2093.28
EXTENSION	606.9		FEXT_REV	68.18
EXTENSION_	0		FIN_1	2521.19
REV			FIN_2	2357.28
FEXT	2093.28		FIN_3	10605
FEXT_REV	68.18		FLC	263.63
FIN_1	2521.19		FLC_REV	195.15
FIN_2	2357.28		FLC_WAIVE	15
FIN_3	10210		FNSF	0
FLC	8071.77		FUN_1	658203.33
FLC_REV	209.44		FUN_2	14259.2
FLC_WAIVE	15		FUN_3	85
FNSF	0		FUN_4	305.55
FOTH1_WAIV	5		INT	88904.16
E			INT_ESTIMAT	128900.35
FPHP	1659		ED	
FUN_1	630790.18		INT_REBATE	8654.78
FUN_2	13648.2		INT_REV	3038.93
FUN_3	85		LNR	788796.75
FUN_4	284.55		NP_EXCESS	2388.78

Based on the results above, we are able to investigate further the reason for each discrepancy, if any.

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## 9. Testing Tool Exceptions

Following is the list of exceptions/limitations of the testing tool

1. Direct Reversal of an Indirect transaction
2. Multiple Payment Hold Assessments/Reversals
3. Payment not allocated to Phone Pay Fee

### **Direct Reversal of an 'Indirect' transaction.**

An Indirect transaction is one that is created by a different transaction. For example, FNSF is an indirect transaction created by the PAYMENT\_VOID transaction. The tool replicates the PAYMENT\_VOID transaction that in turn creates the FNSF. Along the same lines, reversal of the PAYMENT\_VOID transaction will result in the reversal of the FNSF transaction (This is normal Ofsl processing) and will be replicated by the tool.

However when the FNSF transaction is reversed directly, by using the Reverse button on the Transactions screen, the tool is unable to replicate that.

Another example is the PAYMENT\_NONCASH created by modifying the PAYMENT\_ERROR transaction on the Payment Maintenance screen. The non-cash transaction is an indirect transaction and directly reversing it or further modifying it will not get replicated in the Test environment. To summarize direct reversal/modification of the 'child' transaction is not replicated.

Note, the above restriction applies only for the same dataset. If the database is refreshed after the creation of the 'child' transaction and before its direct reversal, the tool replicates the reversal.

### **1. Multiple Payment Hold Assessment/Reversals**

Since the tool is not recording the call activities, multiple payment holds applied or removed on the same day is NOT replicated. To paraphrase, the existence/absence of the Payment Hold condition will match that in production, however intermediate changes will not be reflected.

#### **Examples**

### **9.1 A) Scenario 1**

#### **Production**

- Pmt Hold condition exists on an Account
- Payment applied, payment goes into PAYMENT\_ERROR
- Pmt Hold removed on the same day
- Payment reapplied from Payment Maintenance > Suspense screen. Payment successfully applied to the account as a PAYMENT\_NONCASH

#### **Test**

- Removal of Pmt hold is replicated on Test
- Payment will be applied successfully to the Account as a PAYMENT.
- No PAYMENT\_ERROR is created

## 9.2 **B) Scenario 2 – This scenario results in an exception due to mismatch of balances**

### **Production**

- Pmt Hold condition exists on an Account
- Payment applied, payment goes into PAYMENT\_ERROR
- Pmt Hold removed on the same day
- Payment reapplied from Payment Maintenance > Suspense screen. Payment successfully applied to the account as a PAYMENT\_NONCASH
- Payment Hold condition reapplied

### **Test**

- Since the final state of the account is a PMT HOLD condition no change will be made to the account in test
- Consequently the payment will go into a PAYMENT\_ERROR and will not get applied to the account

In this scenario the account balances DO NOT match.

### **Phone Pay Fee**

Currently in Production One time Phone Pays created during the day are picked up by the SET-CBT-ACH0 > ACCOUNT ACH PROCESSING JOB in the middle of the day (3:15 pm). This job creates the Phone Pay fee (FPHP) (The payment batch is created by the same job). The payments, which post later in the day, get allocated to the FPHP.

On the test environment, the tool posts transactions including Phone pay payments for the entire day. The SET-CBT-ACH0 > ACCOUNT ACH PROCESSING JOB runs AFTER the tool posting is complete. When the payment hits the account, the FPHP is not present on the account. This results in: -

\$7 - additional Principal (ADV) being paid

\$.01 – less interest being accrued since additional principal has been paid

## 10. Testing Tool Test Cases

Module	Function	Sl. No	Test cases
Origination			
	App Entry		
		1	Direct loan
		2	Indirect loan
		3	With CRB pull
		4	Without CRB pull
		5	Application in different stages: New Review Required, Auto Approved, Approved Blank, Approved Verifying, Approved Verified
	Funding		
		6	Loan with Insurances
		7	Loan without Insurances
		8	Loan with Dealer's commission
		9	PreCompute loan
		10	Simple interest loan
Customer Service			
	Payments		
		11	Back dated payment posting across billing for Simple Interest Loan.
		12	Back dated payment reversal across billing for Simple Interest Loan Payment reversal from Payment Maintenance screen.
		13	Back dated payment reversal across billing for Simple Interest Loan Already existing payment. Payment reversal from Payment Maintenance screen.



Module	Function	Sl. No	Test cases
		14	Back dated payment posting across billing for PreCompute Loan.
		15	Back dated payment reversal across billing for PreCompute Loan Payment reversal from Payment Maintenance screen.
		16	Back dated payment reversal across billing for PreCompute Loan Already existing payment. Payment reversal from Payment Maintenance screen.
		17	Overpayment to an account within tolerance.
		18	Overpayment to an account outside tolerance.
		19	Erroneous Payment Batch posting.
		20	ACH Payment Batch posting.
		21	Post backdated payment across billing and NSF the same. NSF from Payment Maintenance screen.
		22	NSF already existing payment. NSF from Payment Maintenance screen.
		23	Create a Payment Batch and Hold the same.
		24	Erroneous Payment Batch posting. Correct the same erroneous transaction and repost successfully.
			Already existing erroneous Payment Batch posting. Correct the same erroneous transaction: Add one row Update one row for date as well as for amount and repost successfully.
			Already existing Open/Hold payment batch: Add one row Remove one row Update one row for date as well as for amount and repost successfully.
		25	Create open Payment Batch and posting the same by running SET-LBT: PAYMENT POSTING
	Payments		

Module	Function	Sl. No	Test cases
	Combinations		
		26	Create sequence of Payment Batch & post the same, having mix of valid and erroneous batches. Few erroneous payment batches not corrected and reposted and few corrected and reposted.
		27	Post payments thru lock box with the ach file having: <ul style="list-style-type: none"> <li>- non-existing a/c no</li> <li>- closed a/c</li> <li>- a/c having payment hold condition</li> <li>- a/c having non-accrual condition, and txn date for the payment is before non-accrual</li> </ul> Correct the erroneous payment batches ( suspense payments) and repost it. Reverse the payments: <ul style="list-style-type: none"> <li>- posted correctly first time</li> <li>- corrected and reposted</li> </ul>
		28	Post the already existing hold payment batch. Reverse the payment.
		29	Create an erroneous payment batch. Correct the payment batch. Put it on hold. Post the payment batch. Reverse the payment
		30	Create a payment batch with: <ul style="list-style-type: none"> <li>- more than one payments</li> <li>- correct and incorrect payments</li> </ul> Post the payment batch. Reverse payments: <ul style="list-style-type: none"> <li>- one which was valid initially</li> <li>- one which was invalid initially</li> </ul>
		31	Crete payment batches with: <ul style="list-style-type: none"> <li>- more than one payments</li> <li>- correct and incorrect payment batches</li> </ul> Run the SET-LBT batch job. Reverse the payments: <ul style="list-style-type: none"> <li>- one which was valid initially</li> <li>- one which was invalid initially</li> </ul>
	Transactions		
		32	PreCompute loan put into non-performing.
		33	PreCompute loan to Simple Interest conversion.

Module	Function	Sl. No	Test cases
		34	Simple Interest loan put into non-performing
		35	Work order Service Expense assessment.
		36	Post Extension.
		37	Post Due Date Change.
		38	Charge off an account.
		39	Pay off an account.
		40	Insurance cancellation on a PreCompute loan a/c.
		41	Insurance cancellation on a Simple Interest loan a/c.
		42	Waive Late Charge on an a/c.
		43	Waive Advance on an a/c.
		44	Waive Interest on an a/c.
		45	Reduce Interest Rebate for PreCompute loan a/c.
		46	A/c Monetary maintenance on an a/c to change the advance, rate, payment amount and maturity dates.
		47	Account Due Paid Amount Maintenance posted on an a/c to update the amount paid in due buckets 1 through 4
		48	Post any of the non-monetary transaction.
		49	Reverse any of the already existing monetary transaction.
		50	Post and reverse any of the monetary transaction.
		51	Reverse the charge off transaction for an a/c already charged off.
		52	Post and reverse the charge off transaction.
		53	Reverse the paid off transaction for an a/c already paid off.
		54	Post and reverse the paid off transaction.
		55	Post a monetary erroneous transaction from maintenance screen.

Module	Function	Sl. No	Test cases
		56	Post a non-monetary erroneous transaction from maintenance screen.
		57	Post an erroneous monetary transaction for which we get the error result in the results pane, correct the same and repost successfully.
		58	Post an erroneous monetary transaction for which we get the popup error message, correct the same and repost successfully.
		59	Void any monetary transaction.
		60	Void any non-monetary transaction.
	Transactions Combinations		
		61	Put a PreCompute loan into non-performing. Convert the same to Simple Interest. Put the converted loan into non-performing.
		62	Sequence of monetary transactions from maintenance screen, having mix of: <ul style="list-style-type: none"> <li>- erroneous monetary transaction, for which we get the error result in the results pane</li> <li>- successful non-monetary transactions</li> <li>- erroneous monetary transaction, for which we get the error result in the results pane, corrected and reposted successfully</li> <li>- erroneous transactions for which we get the popup error message</li> <li>- erroneous transactions for which we get the popup error message, corrected and reposted successfully</li> <li>- void monetary transactions</li> <li>- successful monetary transactions</li> </ul>
	Full Run	63	<ul style="list-style-type: none"> <li>- Fund a new backdated loan from scratch.</li> <li>- Post payments.</li> <li>- Post monetary transactions.</li> <li>- Post non-monetary transactions.</li> </ul>

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## 11. For Next Releases

Though the Testing Tool is totally dynamic and automates the tests by logging all actions executed on a Production environment, then replicating them in a Test environment, which will have a higher version of OFSLL. This tool still requires technical people, with technical knowledge of OFSLL processes and architecture to be installed and run. For future releases, we can create an installation package and a user friendly front end in order to users to be able to do all the tests independently. Also, some of the current exceptions and limitations could be worked on in order to incorporate to the tool's functionalities.



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