

Yethi assists a leading bank in India in optimizing their payment processes

The Challenge

The bank had observed multiple functional and performance issues with their payment services across various channels. To ensure that their payment processes be safe and efficient, the bank needed a thorough evaluation of the same.

The Solution

Yethi formulated a comprehensive test coverage plan, prepared test designs and executed the integrated test designs across the following payment channels in order to verify the key processes, end-to-end.

Channels	No. of test conditions
NEFT (National Electronic Funds Transfer) & RTGS (Real Time Gross Settlement)	1014
IMPS (Immediate Payment Service)	90
ATM (Automated Teller Machine)	342
BNA (Bunch Note Acceptor) / CDM (Cash Deposit Machine)	313
POS (Point-of-Sale)	200
Internet Banking	1587
UPI (Unified Payments Interface)	70
Mobile Banking	134
NEFT & RTGS – CMS (Content Management System)	152

The Approach

Yethi developed test designs for payments initiated from Core Banking System, Internet Banking, Mobile Banking, UPI, ATM, POS and API (Application Programming Interface).

Then, Yethi executed the test cases through Test Condition matrix covering all possible scenarios, using [Tenjin](#), Yethi's robotic test engine.

The following processes were evaluated.

Branch Transactions	<ul style="list-style-type: none"> ○ Intra Bank Transfers ○ NEFT-Outgoing Payments ○ NEFT-Incoming Payments ○ Bulk Upload NEFT-Outgoing Payments - SCSD (Single Credit Single Debit) ○ Bulk Upload NEFT-Outgoing Payments – SDMC (Single Debit Multiple Credit) ○ RTGS Outgoing Customer Payments ○ RTGS Incoming Customer Payments ○ RTGS Outgoing Bank Payments ○ RTGS Incoming Bank Payments ○ Bulk Upload - RTGS Outgoing Payments - SCSD - Customer Transfer ○ Bulk Upload - RTGS Outgoing Payments - SCSD - Bank Transfer ○ Enquiry of NEFT & RTGS
Mobile Banking	<ul style="list-style-type: none"> ○ Registrations ○ Manage Accounts ○ Send Money – IMPS/UPI ○ Transaction history ○ Deregistrations
Internet Banking	<ul style="list-style-type: none"> ○ NEFT, RTGS, IMPS ○ Internal Bank Transfers ○ Bulk File Uploads ○ Beneficiary Maintenance
Channels	<ul style="list-style-type: none"> ○ Off-Us ○ On-Us ○ Remote On-Us ○ Reversal
API & Interface	<ul style="list-style-type: none"> ○ NEFT Outward Process ○ NEFT Inward File upload Process ○ NEFT Message Flow ○ RTGS Outward Process ○ RTGS Inward File Upload ○ RTGS Message Flow ○ IFSC Proliferation Message

And the following were evaluated as the key scenarios.

Core Banking	<ul style="list-style-type: none"> ○ Pre Cut-off Transactions ○ Post Cut-off Transactions ○ Account Status and Account Types Transactions ○ Message Validations ○ Accounting Entries ○ Reschedule Transactions ○ Holiday Transactions ○ Returns from Beneficiary Bank ○ Inter Branch Transactions ○ Account Level and Customer Level Memo Transactions ○ Inward Transaction Validations ○ NEFT Inward Return within Batch +2 Hours ○ Inward Validations to NRE (Non-Resident Rupee) Accounts
Internet Banking	<ul style="list-style-type: none"> ○ Net banking Logins ○ Beneficiary Maintenance ○ NEFT, RTGS, IMPS Payments ○ Internal Bank Transfers ○ Bulk File Uploads
Mobile Banking	<ul style="list-style-type: none"> ○ Mobile Banking Registrations/Deregistrations ○ Account Management ○ Balance Enquiry, Mini Statement, Transaction History ○ IMPS Payments ○ Internal Bank Transfers ○ UPI Payments
Debit Card	<ul style="list-style-type: none"> ○ On-Us Financial Transactions ○ On-Us Refund Transactions ○ On-Us Non-Financial Transactions ○ Off-Us Financial Transactions ○ Off-Us Non-Financial Transactions ○ Non-Financial Remote On-Us Transactions ○ Financial Remote On-Us Transactions ○ Remote On-Us Service Charges ○ Remote On-Us Financial Transactions - Small / No frills / Basic Savings Accounts ○ Remote On-Us Refund Transactions ○ Account Level Memos ○ Customer Level Memos ○ Blacklisted Customers ○ ATM Offline Transactions ○ POS Online Purchase/Reversal Transactions ○ POS Offline Purchase/Reversal Transactions

Interfaces and API	<ul style="list-style-type: none">○ NEFT Transactions through CMS○ Processing the NEFT Inward Transactions○ Inward NEFT Transactions processed with CMS Virtual Account○ NEFT Outward No6 Message - Success flow○ Alerts for NACKS (Negative Acknowledgements)○ No3 Reschedules/Rejects○ NEFT Outward No2 Messages - Success flow○ NEFT Outward No2 Messages - Failure flow○ RTGS Transactions through CMS○ RTGS Inward File for CMS Accounts○ RTGS Inward File for Non-CMS Accounts○ Inward RTGS Transactions processed with CMS Virtual Accounts○ IFSC Addition Process○ IFSC Updating Process○ IFSC Deletion Process○ Header Change for No6 and No7 Message Type○ GL (General Ledger) Posting Restrictions Validations
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The Result

Yethi validated the bank's payments system covering all key business processes across the payment channels, **reporting 1891 defects, out of which 160 were showstopper & 644 were critical defects.**

Yethi was able to execute all activities efficiently owing to subject matter expertise, a library built of 100,000 domain-specific test cases and a [robotic test-automation platform](#).

About Yethi

Yethi is a leader in Quality Assurance solutions for the global banking and financial services industry. Founded by Fintech professionals with decades of domain experience, Yethi is invested in building the next generation of solutions to improve the quality of digital technologies being adopted within enterprises. One such solution is a robotic functional test automation platform, Tenjin, that follows a unique approach focused on ease of use and maintenance.

About Tenjin

Tenjin is Yethi's scriptless test automation platform, a plug-and-play banking aware solution, with distinctive features like robotic capabilities to learn the application and re-learn after any updates, so regardless the complexity and number of updates, the test execution remains high-speed, minimizing manual effort.

To know more about how we can help you mitigate business risks associated with technology enabled operations, reach out to us at info@yethi.in.