

Kony Retail Banking Solution: What's In the Box



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Introduction

The aim of this document is to describe the Kony Retail Banking packaged solution. The primary objective is to help banks and credit unions to understand the “fit” of this solution to address the business processes and technical requirements. It is intended as a summary and includes an additional resources section where more detailed documentation can be found.

Kony Retail Banking is part of the Kony Apps portfolio. The solution delivers a unified and personalized experience to retail banking users. The solution is secure, internationalized and pre-configured with functionality based on best practices in the banking industry. The solution is configurable, extensible with universal integration, and allows you to provide a highly personalized and branded mobile experience for your customers/members.

Solution Overview

The Digital Banking Revolution

The digital revolution in banking has only just begun. Today we are in phase one, where most traditional banks offer their customers high-quality web and mobile sites/apps. An alternate approach is one where digital becomes not merely an additional feature but a fully integrated mobile experience in which customers use their smartphones or tablets to do everything from opening a new account and making payments to resolving credit-card billing disputes, all without ever setting foot in a physical branch.

The race is on for banks and credit unions - large and small - to successfully retain existing customers and members as well as attract and engage new customers and younger adults. New device technology, digital transformation of business processes and high speed networking are now allowing banks and credit unions to do so much more than before. Consumers are turning to computers, smartphones, and tablets more often to do business with their banks, while visiting branches and calling service lines less frequently.

To compete and move at the speed today’s consumer demands, banks and credit unions must provide easy-to-use, indispensable mobile app experiences or fight a losing battle for market share.

Kony Retail Banking Solution

The Kony Retail Banking offering delivers a unified, highly personalized customer experience across any digital channel (phone, tablet, desktop or wearable) using a single code base improving customer satisfaction, reducing attrition, accelerating end-user adoption and lowering the total cost of ownership.

Our market leading solution seamlessly integrates with disjointed banking systems (payments, loyalty, and credit card) and is completely configurable, fully customizable, highly secure, and business-ready

with reporting and analytics. The solution incorporates industry best practices for app development and advanced security features to safeguard data and is backed by Kony's industry leading SLA for supporting new devices and operating systems to future-proof investment.

Key Benefits

Business:

- State of the art omni-channel mobile user experiences, maximizing mobile device capabilities.
- Enables delivery of highly targeted, personalized campaigns to promote products or services, or offer co-branding opportunities (sponsored ads for local events that are relevant to audience).
- Provide distinct user experiences by channel, locale, or environment.
- Differentiate the brand while reducing risks involved in building applications from scratch.
- Support industry-wide mobile banking app best practices such as device registration, SSL encryption, biometrics, and session timeouts along with secure coding practices.

Technical:

- Connect existing core banking systems via web services or connectors to drive multi-channel experience.
- Includes annual upgrades to latest operating system versions and continuous support.
- Ability to integrate with various banking service providers and back ends that cover security, remote check deposit, P2P payments, bill pay, and personal financial management.
- Easily extend applications to support business-specific requirements and third-party functionality.
- The design allows greater reuse and the ability for banks to innovate faster without having to depend on any specific backend vendor.
- Technical innovations supported by the Kony Mobility Platform such as Bots, voice/text integration, and wearables.
- Orchestrate workflows with multiple systems and datasets to deliver a unified user experience.

Key Differentiators

- **Omni-channel experience:** Deliver personalized, differentiated experiences across all device types; truly native experiences on mobile and tablet, solution that works on desktop web browsers, with the option to extend support to other operating systems and devices.
- **Integration and extensibility:** Flexible solution that allows financial institutions to constantly innovate, instead of having to rely on the backend vendors' roadmaps.
- **Enterprise grade security:** Based on industry best practices for app development and advanced security features to safeguard data.
- **Rapid time-to-market:** Stay ahead of the competition with accelerated delivery cycles, to implement continuous enhancements.

- **Investment protection:** Backed by Kony’s SLA for supporting new devices and operating systems to future-proof investment. Includes annual upgrades to latest operating system versions and ongoing support..
- **Built on the industry-leading Kony Mobility platform:** Kony recognized by Gartner for the fourth year in a row as a leader in the 2016 Magic Quadrant for Mobile Application Development Platforms.

Feature Summary

Note that the Kony Retail Banking solution is a packaged application that is highly extensible and flexible to include additional customer requirements and branding, without affecting the core upgrade path of the product. The following lists the standard high level features of the solution.

Application Launch and Sign On

Feature	Description
Secure Sign in	Securely sign in with the username and password, and fingerprint authentication.
Pre-login accounts preview	If this setting is turned on, the Pre-Login Accounts Preview container shows a quick snapshot of the last-retrieved account balances. Information displayed in the Preview screen is encrypted and displays real-time balance for the user accounts. Applies only to the native phone and tablet applications.
Forgot password	Ability to answer challenge questions; if correctly answered, the user gets an alert that the password reset instructions have been sent to the registered email address.
New user enrolment	For existing customers of the bank who have not enrolled to mobile/online banking, the ability to perform a simple 3-step enrolment process.
Device registration	After successful first-time login, if a user’s device is not registered, enter a one-time-password and register the device in the bank’s server. Applies only to the native phone and tablet applications.
Fingerprint/Biometric authentication	Biometric authentication for iOS and Android devices using the native fingerprint authentication capability (iPhone, iPad, and Android phones).
Marketing message placeholder	Placeholder on the Login screen to display either an advertisement, deal, or outage notification.
Terms & Conditions	Shows the terms and conditions to use the banking application.
Privacy Policy	Shows the privacy policy of the bank, with respect to collecting the user’s personal details.
FAQs	Includes help on how to use the application features.

Accounts and Transactions

Feature	Description
Accounts Overview/ Dashboard	Accounts overview dashboard that provides insight into the total deposit amount, the total credit outstanding amount, a list of all accounts held with the bank. Also includes charts showing a day-wise trend of the total balance for the current month and the spending comparison between the current and previous months.
Account details	For each account, shows a list of recent transactions as well as some important details about the account (for example, available balance).
Account preferences	Ability to update the account nickname as well as call customer service to discuss the account or dispute a specific transaction.
Support multiple account types	Support various types of accounts: Checking, Savings, Credit Card, Loan, Mortgage, and Deposit accounts.
Account Statements	View a list of account statements, as well as open a PDF statement.
Transaction search	Search for transactions within an account by entering the transaction description keyword and/or amount range and/or date range and/or check number range.
Transaction details	For each transaction, ability to view additional details of the transaction; attributes displayed vary depending on the transaction type and also view check images where necessary.
Apply for new account	Wizard-driven flow to apply for a new account. Once the account application is submitted, an acknowledgement message is shown that the bank will contact the customer about the application.

Transfers

Feature	Description
Transfer between own accounts	Initiate the transfer between the user's accounts within the same bank. If the transfer is initiated successfully, show an acknowledgement alert along with a transaction reference number.
Transfer to external account	Transfer to an existing external account (in another bank), as well as add a new external account on the fly.
Recent and scheduled transfers	View a list of the recent transfers and scheduled transfers, sorted by date (most recent on top).
Update/ cancel scheduled transfer	In case of a scheduled future-dated transfer, ability to modify the details or cancel the transfer.
Recurring transfers	Ability to optionally set up a recurring transfer (daily, weekly, or monthly) within a date range or specify the number of times.

Bill Pay

Feature	Description
Pay a bill	Initiate a bill payment (for example, a bill from a utility company).
Manage bill payees	View a list of registered bill payees, view past history of bills paid to a company, create a new payee account on the fly, update the payee details or delete the payee account.
Recent and scheduled bills	View a list of the recent bill payment and scheduled payments, sorted by date (most recent on top).
Update/ cancel scheduled payment	In case of a scheduled future-dated bill payment, ability to modify the details or cancel the payment.

Pay a Person (P2P Transfers)

Feature	Description
Send money to friend	Initiate a P2P transfer (for example, to a friend).
Manage P2P recipients	View a list of registered P2P payees, create a new P2P payee manually, choose from the list of my device contacts and create a new payee.
Recent and scheduled P2P transfers	View a list of recent P2P transfers and scheduled transfers, sorted by date (most recent on top).
Update/ cancel scheduled P2P transfer	In case of a scheduled future-dated P2P transfer, ability to modify the details or cancel the P2P transfer.

Remote Check Deposit

Feature	Description
Deposit a check	Choose an account to deposit into, specify the amount, add a note, take pictures of the check (front and back images), and initiate a remote deposit. Applies only to the native phone and tablet applications.
Recent and scheduled deposits	View a list of recent check deposits and pending deposits, sorted by date (most recent on top). Applies only to the native phone and tablet applications.

ATM/Branch Finder

Feature	Description
Find ATMs near me	Find nearest ATM/Branch based on my device current location and search using the postal code, city, or state.
View ATMs/ branches list in map	Ability to view the ATMs/Branches in a list or in a native map.
View ATM/branch details	View details about the ATM/Branch including the contact details, address, and services offered and the hours of operation, and also the ability to know distance from current location and get directions to reach the Branch/ATM along with turn-by-turn navigation steps.

Manage Cards

Feature	Description
View cards	View all debit and credit cards, including supplementary cards; details include an image of the card, name of the card-holder and more.
Activate/ deactivate card	Ability to activate a card (in case of a new card) or deactivate a card (in case of fraudulent transactions uncovered). The activation and deactivation takes effect immediately.
Request replacement card	Request for a replacement card (in case the old card is about to expire); if the request is accepted, a new card is sent to the user.
Report lost/stolen card	Ability for the users to report the card as lost or stolen. If the request is accepted, the card status is changed immediately.
Stop/cancel card	Cancel a card directly from the application; if the request is accepted, the card is cancelled immediately.

My Money - Personal Finance management

Feature	Description
Accounts list	Get a list of my accounts (over different banks), provided by the bank's PFM vendor, along with the balances for each account.
Spending patterns	Display a Cash Flow bar chart that shows the total money spent month over month for the past five months and the ability to look into the expenses for a specific month (shows the percentage breakdown for each expense type in a pie chart). Look into the expenses list for a specific category.
Budget dashboard	Display the budget used up versus allocated, for each category, for the current month.
View details & categorize transaction	Show the list of uncategorized transactions, and view transaction details and map to a specific category (the category is reflected in the PFM analysis).

Assisted Service

Feature	Description
Contact Us/Click to call	Ability to call customer service for different kinds of enquiries/service requests – uses the device's native phone application where applicable.
Message center	Send a new message to the bank (complaint, new request, feedback), view the list of inbound messages from the bank, reply to a message, save as draft, delete messages, view deleted messages, and delete messages permanently.

My Profile

Feature	Description
View/update my profile	Ability for a user to view/update profile – includes the contact details, picture (using the device camera) and address details.
Change username and password	Answer challenge questions, and modify the username or password.

End-user Personalization and Settings

Feature	Description
Turn on/off account preview	Ability for a user to turn on/off the Pre-Login Account Preview screen (for security purposes). Applies only to the native phone and tablet applications.
Turn on/off Touch ID	Ability for a user to turn on/off the Touch ID screen (for security purposes). Applies only to the native phone and tablet applications.
Set default account for transactions	Ability for a user to set the default account for various transactions such as Transfers, Bill Pay, P2P, and Deposits (for ease of use).
Activate/ deactivate device registration	Ability for a user to de-register or register the device. Applies only to the native phone and tablet applications.

Alert Settings

Feature	Description
Set account alerts	Ability for a user to set alerts at an individual account level – these include alerts for minimum balance, balance update, debit limit, credit limit, deposit maturity, successful transfer, check clearance, and payment due reminder.
Set security alerts	Ability for a user to set various security alerts – these include alerts for banking ID change, password change, communication details change, new payee addition, and update to existing payee details.
Set deal alerts	Ability for a user to turn on/off various deal alerts – these include alerts for new deals available and deals expiring in one day.

Informational Content

This includes the ability to view terms and conditions to use the banking application, view privacy policy of the bank, access FAQ/help to use the application features, the daily interest rates offered by the bank, foreign exchange rates, and the application version details.

Offers and Campaign Management

The solution enables sophisticated mobile customer engagement programs leveraging multichannel messaging based on location, campaign, events, and context.

Analytics

The solution provides customizable dashboards driven from an analytics engine, with custom and prebuilt analytics including reports on device and app usage, policy compliance, and user journey event tracking.

Security

- Fingerprint authentication for iOS (phone and tablet) and Android (mobile only) devices.
- Multi-factor authentication and step-up authentication (for example, using challenge questions).

- Mask passwords, credit/debit card numbers wherever displayed.
- All data stored on the device is encrypted.
- Files such as account statements, check images, and card images are not stored on the device.
- All the service calls use a secure channel.
- Only required information is sent to third-party services (for example, Maps-related APIs) and sensitive information is not sent.
- The application clears sensitive data (for example, Password, Account number, and SSN) from the forms after navigating away from the forms.
- On log off (either manually triggered or when the session times out), all the global information related to the user at client side is cleared.
- On log off (either manually triggered or when the session times out), the session at middleware is invalidated and a new session is created on log on.
- After a pre-set idle time out interval, the user is logged out of the application.
- The password is encrypted while sending over the network.
- In addition, as the solution is built using the Kony platform, there are some additional security features that are available:
 - Hardened against hacking attacks and malware exploits
 - Encrypted at rest, in transit, and in memory
 - Session timeouts and device blocking
 - Security features across data storage, data transport, authentication, and access control
 - Exclusive 1-click binary protection, that makes the application truly secure.

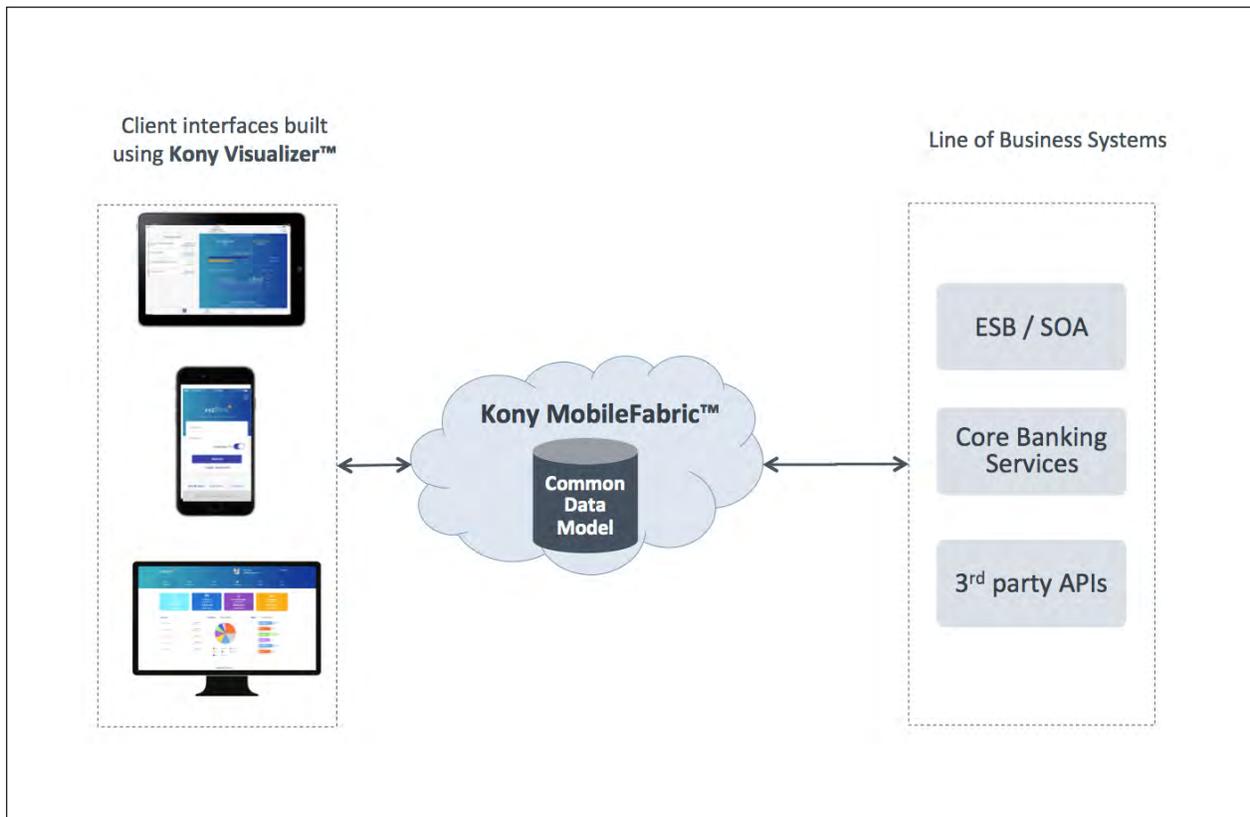
Architecture

The Retail Banking solution is built on the Kony platform and is based on a model-driven architecture. The user interface and business logic for each of the channels (phone, tablet, and desktop web) are built using Kony Visualizer, and are loosely coupled to make it more reusable, easier to customize various application layers, to improve testability, and to make it easier to maintain and support. The user interface is tied to a common data model residing in Kony MobileFabric using object services. By default, the common data model is connected to a demonstration database using XML services.

In real customer implementations, the data model is connected to multiple back-end systems provided by a bank or credit union (for example, core banking system, PFM provider, Bill Pay provider, and online banking user database) using integration services. The run-time mobile banking application is then connected to the data model using application services. The user interface and business logic for each of the channels (phone, tablet, and desktop web) are built using Kony Visualizer.

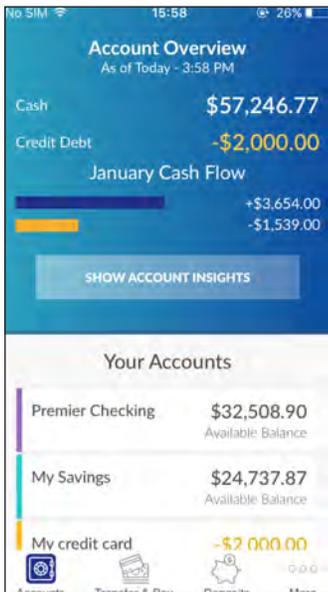
This integration architecture allows greater reuse and the ability for banks to innovate faster without having to depend on any specific backend vendor. To change a backend vendor or to move to a new version of an existing backend, the bank need not change the entire application, but only need to focus

on the integration services and the mappings. In addition, the loose coupling offered in this approach also helps in easier customization of the various application layers (data objects, business logic, UI/UX), improve testability, and help make it easier to support and troubleshoot issues. The picture shows the high-level depiction of the architecture.

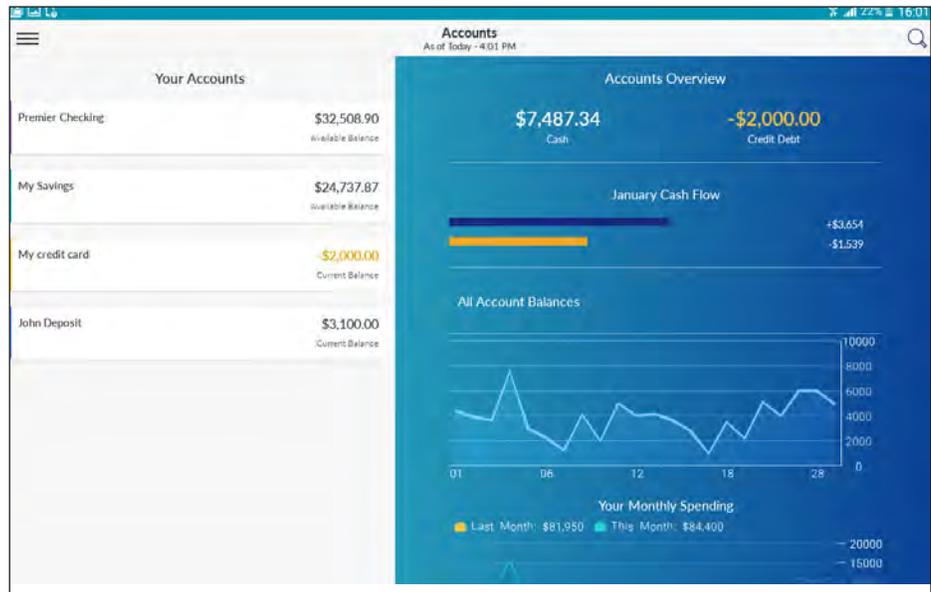


Screenshots

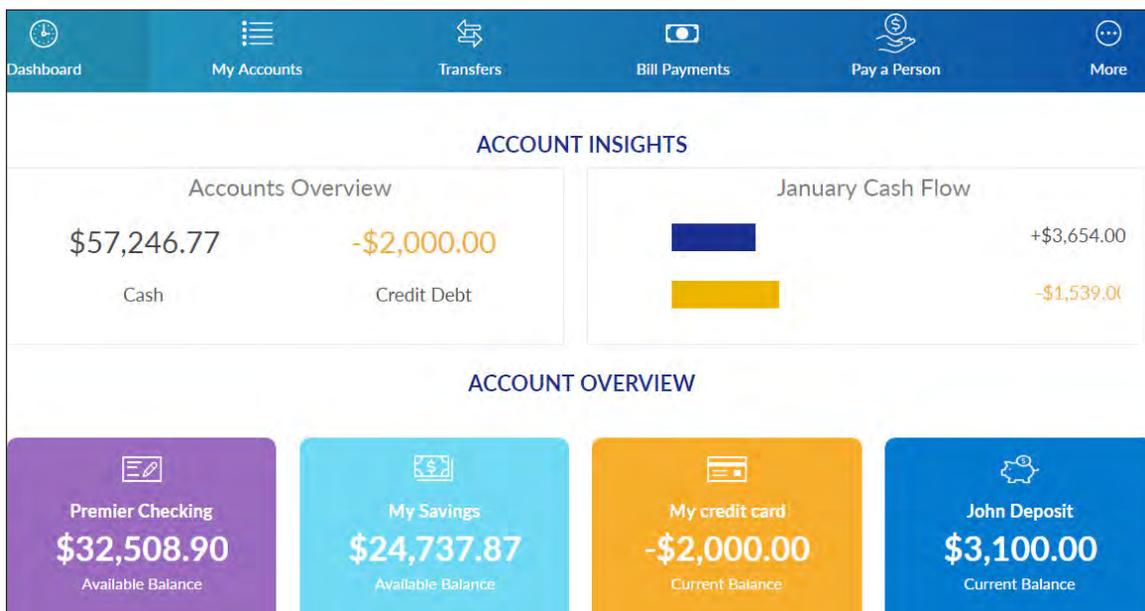
The Kony Retail Banking solution delivers a leading edge “omni-channel” user experience. It is implemented as a native device application optimizing response times and taking full advantage of the device features and capabilities.



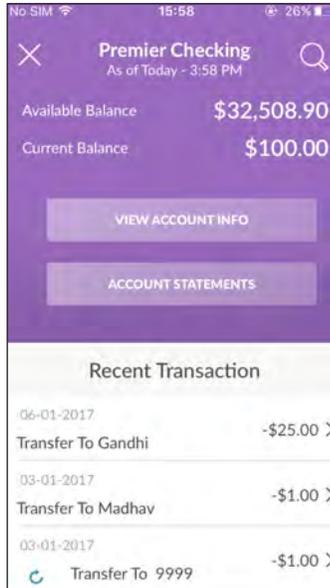
Account Dashboard - Mobile



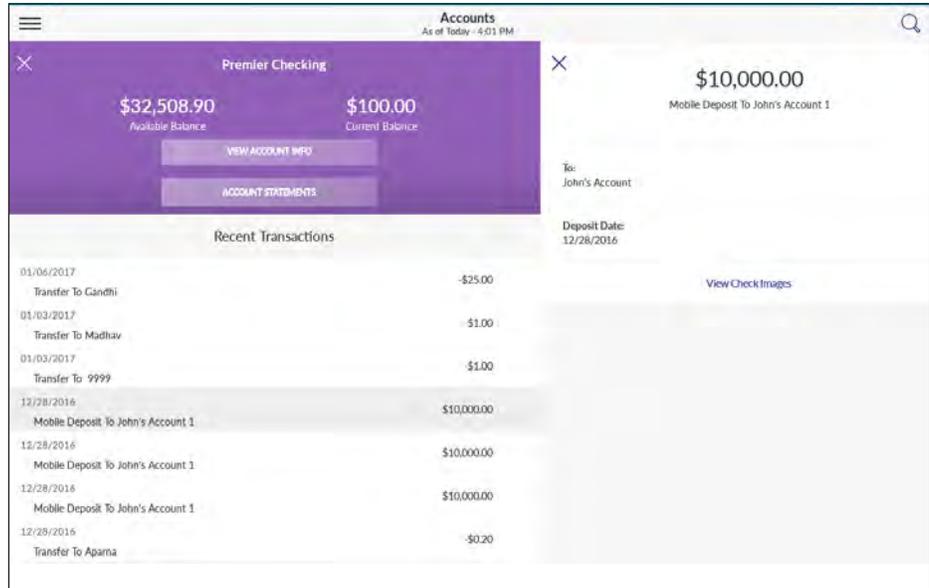
Account Dashboard – Tablet



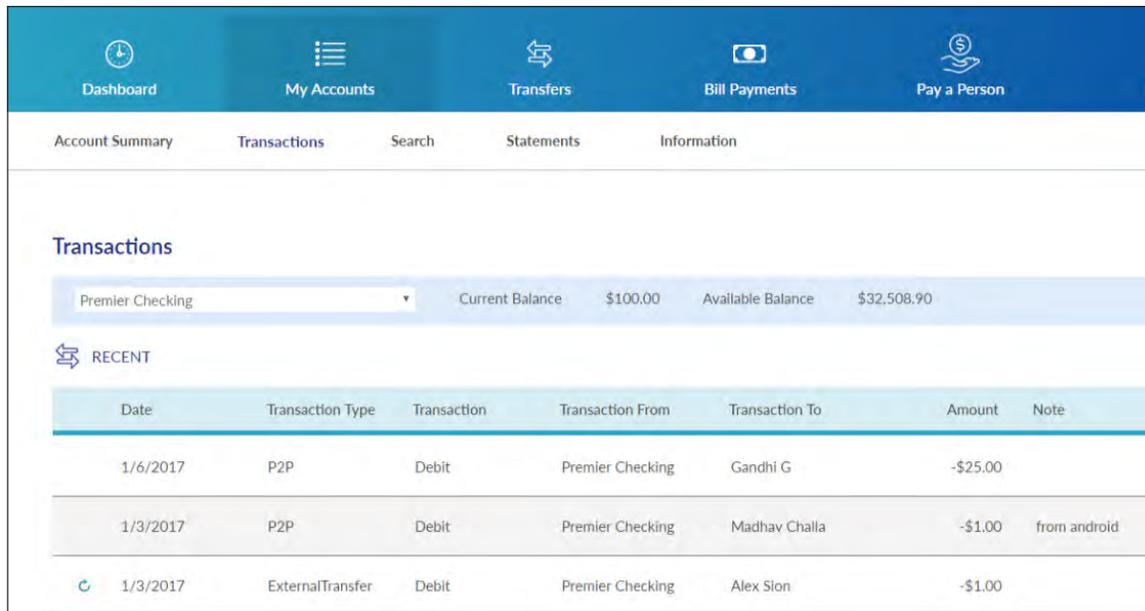
Dashboard – Desktop Web



Recent Transactions – Mobile



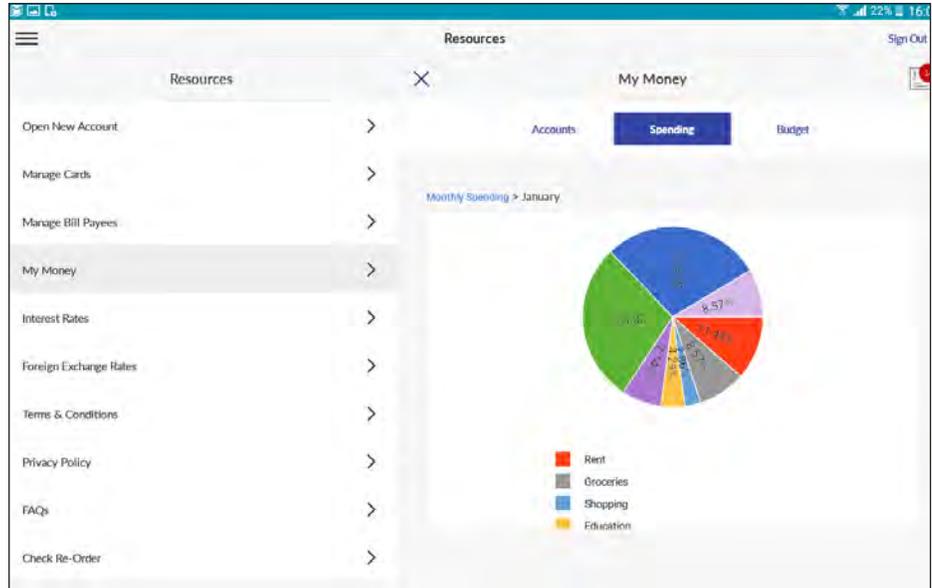
Recent Transactions – Tablet



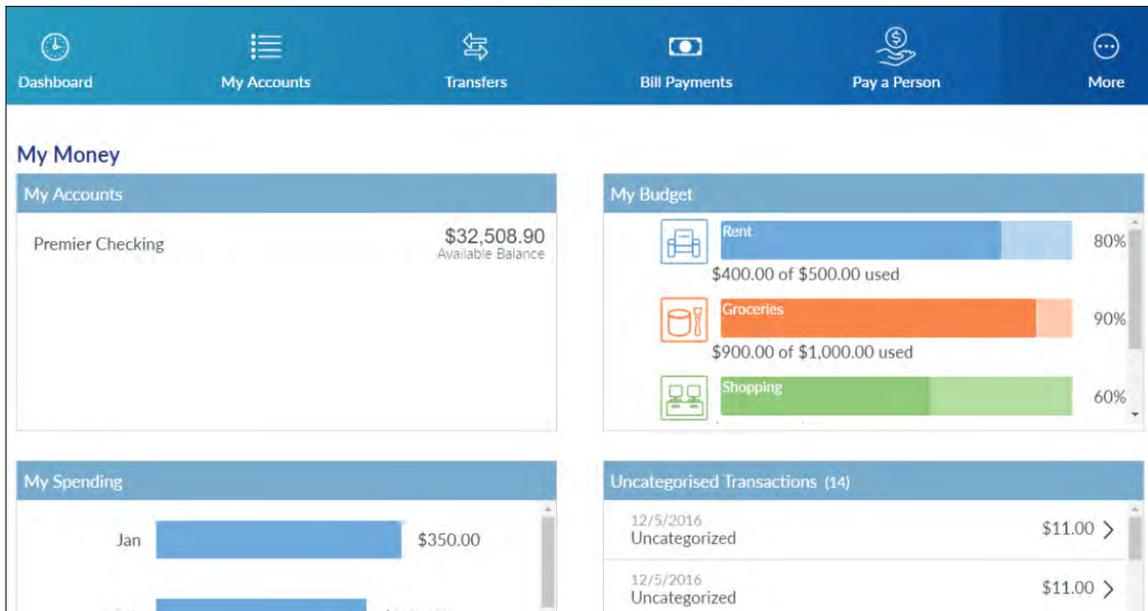
Recent Transactions – Desktop Web



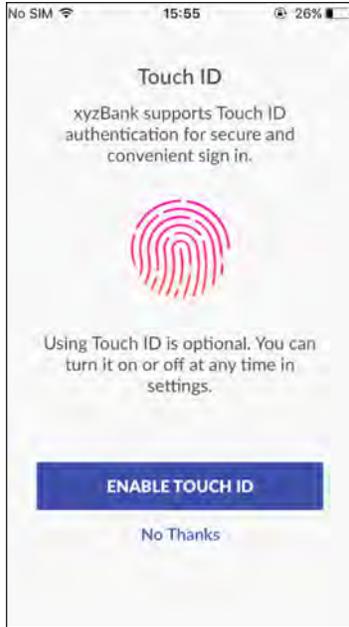
My Money – Mobile



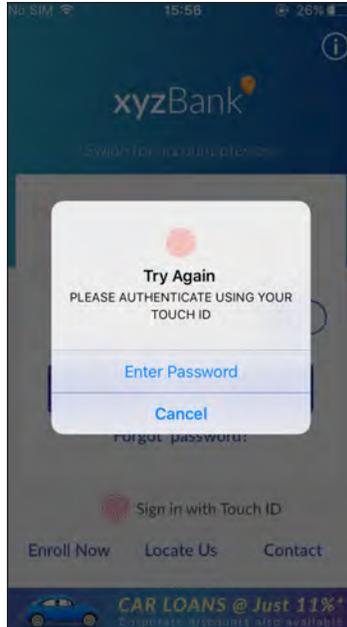
My Money – Tablet



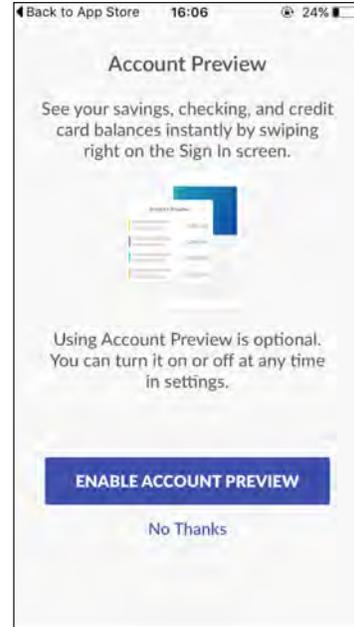
My Money – Desktop Web



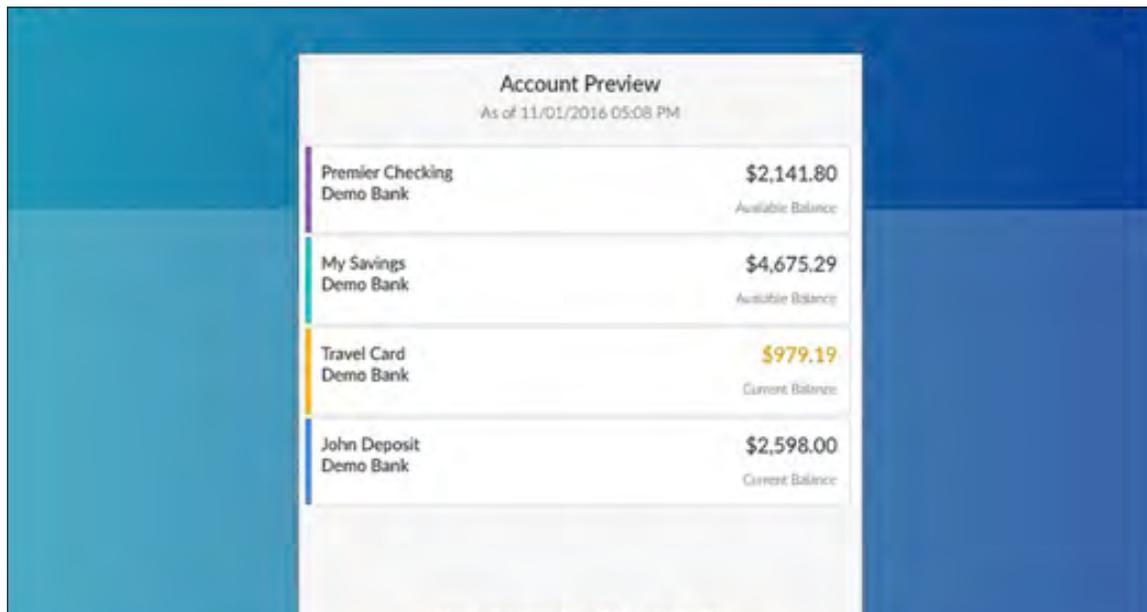
Biometric Authentication



Biometric Authentication



Pre-login Account Preview



Pre-login Account Preview

Quick Feature Checklist

Area	Feature
Application Launch and Sign On	<ul style="list-style-type: none"> • Biometric authentication • Secure sign in with the username and password • Pre-login Account Preview • Security Questions for account details updates • New User Enrolment to mobile banking
Accounts and Transactions	<ul style="list-style-type: none"> • Support various types of accounts: Checking/Savings/Credit Card/ Loan/Mortgage and Deposit accounts • Accounts overview dashboard • View and Search Transactions • Remote Check Deposit • Apply for new account
Transfers and Payments	<ul style="list-style-type: none"> • Initiate the transfer between the user's accounts within the same bank. • Transfer to an existing external account (in another bank), as well as add a new external account on the fly. • Initiate a bill payment (for example, a bill from a utility company) • Initiate a P2P transfer (for example, to a friend) • Schedule payments and transfers • Ability to optionally set up a recurring transfer (daily, weekly or monthly) within a date range or specify the number of times.
Remote Check Deposit	<ul style="list-style-type: none"> • Take pictures of the check and initiate a remote deposit to your account. • View a list of recent check deposits and pending deposits.
ATM/Branch Finder	<ul style="list-style-type: none"> • Find nearest ATM/Branch based on my device current location and search using the postal code, city or state. • View details about the ATM/Branch including the contact details, address, services offered and the hours of along with step by step navigation details.
Manage Cards	<ul style="list-style-type: none"> • View all debit and credit cards, including supplementary cards; details include an image of the card, name of the card-holder, and more. • Complete control on the cards with features like: <ul style="list-style-type: none"> - Activate/Deactivate card - Request for Replacement card - Report card as lost/stolen - Cancel card
Personal Financial Management	<ul style="list-style-type: none"> • Get a list of accounts (over different banks), provided by the bank's PFM vendor, along with the balances for each account. • Display the budget used up versus allocated, for each category, for the current month. • View and manage uncategorized transactions • Show a Cash Flow bar chart that shows the total money spent month over month for the past five months and the ability to look into the expenses for a specific month.

Area	Feature
Assisted Service	<ul style="list-style-type: none"> • Ability to call customer service for different kinds of enquiries/service requests – uses the device’s native phone application where applicable. • Send a new message to the bank (complaint, new request, feedback), view the list of inbound messages from the bank, reply to a message, save as draft, delete messages, view deleted messages, and delete messages permanently.
My Profile	<ul style="list-style-type: none"> • Ability for a user to view/update profile – includes the contact details, picture (using the device camera), and address details.
End-user Personalization and Settings	<ul style="list-style-type: none"> • Turn on/off the Pre-Login Account Preview screen (for security purposes) • Register/De-register device • Set default accounts for various transactions
Alert Settings	<ul style="list-style-type: none"> • Set alerts at an individual account level – minimum balance, balance update, debit limit, credit limit, deposit maturity, successful transfer, check clearance, and payment due reminder. • Set security alerts – banking ID change, password change, communication details change, new payee addition, and update to existing payee details. • Turn on/off various deal alerts – new deals available and deals expiring in one day.
Global	<ul style="list-style-type: none"> • Internationalization ready • Date, time, currency localization
Informational Content	<ul style="list-style-type: none"> • FAQs available (pre and post login) • Terms and Conditions
Offers and Campaign Management	<ul style="list-style-type: none"> • Generic and targeted marketing campaigns
Analytics	<ul style="list-style-type: none"> • The solution provides customizable dashboards driven from an analytics engine, with custom and prebuilt analytics including reports on device and app usage, policy compliance, and user journey event tracking.
Security	<ul style="list-style-type: none"> • Industry rated security • User name, password secure entry • Offline encrypted password • Multi-factor authentication and step-up authentication (for example, using challenge questions) • All the service calls use a secure channel. • After a pre-set idle time-out interval, the user is logged out of the application.
Extensible and flexible	<ul style="list-style-type: none"> • Add customer specific requirements such as attributes, screens and more. • Maintain upgradability with core product. • Easily rebrand the user interface

Additional Resources and Links

Area	Feature
Website	http://www.kony.com/products/apps/retail-banking <ul style="list-style-type: none"> • Summary of features • Data sheet
Videos	https://www.youtube.com/playlist?list=PLGdu8FQRGtxkFmy-Ph0uzq4qnEZd16WcCe
Additional online resources	http://www.kony.com/products/apps/retail-banking <ul style="list-style-type: none"> • Case Studies • Market analysis • Press releases

Kony is the fastest growing, cloud-based enterprise mobility solutions company and an industry leader among mobile application development platform (MADP) providers. Kony empowers organizations to compete in mobile time by rapidly delivering, ready-to-run, multi-edge mobile apps across the broadest array of devices and systems, today and in the future, with a lower total cost of ownership. Kony's cross-platform solution helps organizations design, build, configure and manage mobile apps to empower and better engage with customers, partners and employees.

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