

Case Study

# Cross-Border Payments Solution for Secure International Money Transfers

A cross-border payments platform supporting multicurrency transfers, FX conversion, digital KYC, and transaction tracking across iOS and Android.



## PROJECT OVERVIEW

A UK-based FinTech engaged Rishabh Software to develop a cross-border payments solution supporting international money transfers, multicurrency customer journeys, real-time FX information, and digital KYC.

Rishabh Software engineered and delivered the solution from requirements analysis through testing. The platform integrated Currency cloud for payment transfers and FX processing, ID3 Global for identity verification, and Twilio for account verification and transaction notifications. A centralized backend hosted on Microsoft Azure managed transaction lifecycles, customer data, and integration workflows across mobile channels.



Capability

Digital Payments Engineering



Industry

Fintech



Country

UK

## KEY FEATURES

The solution brought together core capabilities for cross-border payments, including currency conversion, identity verification, transaction tracking, and customer notifications.

### International Transfers and Currency Exchange

Enabled cross-border fund transfers through Currencycloud integration for currency conversion and payment processing.

### Live Exchange Rates

Displayed live exchange rates in the app, helping users review currency values before initiating a transfer.

### Transaction History

A centralized transaction history showing recipient details, transfer amounts, dates, and transaction status for completed and ongoing transfers.

### Identity Verification During Onboarding

ID3 Global integration for identity verification and KYC checks during registration, with transaction access enabled after successful verification.

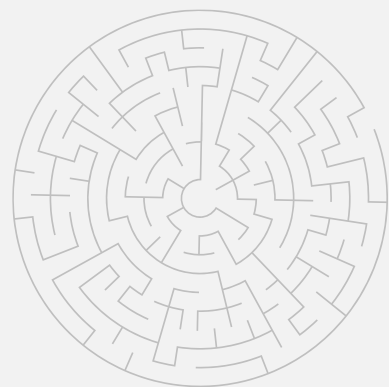
### Phone Number Verification

Twilio-powered OTP verification for registered mobile numbers during account activation, adding an additional layer of account verification.

### Push and SMS Transaction Alerts

Twilio-powered push and SMS notifications for key transaction updates, including transfer initiation, receipt, and confirmation.

## CHALLENGES



- Delivering a consistent payment experience for users across different countries and nationalities.
- Cross-border payment and settlement complexity, spanning currency conversion across 11 to 12 destination currencies, was addressed through third-party payment network integration.
- Seamless identity and customer verification was a challenge, which was handled through standardized KYC and account verification workflow adhering to regional norms
- Financial and user data needed protection against unauthorized access, which called for token-based authentication and encryption of sensitive fields in the service layer.
- Transfers that fail partway through a payment chain needed an efficient way to be identified and refunded without manual intervention from support teams.
- Authentication details and personal data held on user devices had to be limited so that nothing sensitive remained accessible after a session ended.

## SOLUTION

Our [mobile app development team](#) developed the money transfer app from the ground up. We delivered the solution in phases, starting with Proof of Concept to validate the proposed technical approach before moving to the final solution.

### Unified Cross-Platform Customer Experience

The mobile app used a shared codebase for iOS and Android to deliver a consistent transfer experience across both platforms. Shared transfer, currency conversion, and verification logic helped maintain consistency in transaction amounts and statuses, while each app interface followed the conventions of its respective platform

### Payment, FX and Identity Ecosystem Integration

Currency Cloud was integrated to handle cross-border currency conversion and fund transfer processing. ID3 Global supported identity verification and KYC checks during onboarding, while Twilio handled SMS-based phone verification and transaction alerts. Each service was integrated into the relevant part of the payment and onboarding workflows.

### Transaction Lifecycle and Automated Exception Handling

The solution managed transaction states across the transfer lifecycle, identifying failed transfers and automatically initiating refunds where applicable. This reduced manual intervention while maintaining a consistent view of transaction status across the customer experience and backend services.

### Centralized Transaction Management

The service layer was built using ASP.NET and C#, and hosted on Microsoft Azure with SQL Server. It handled fund transfer requests, currency conversion calls, and user account data. This provided a consistent source of transaction and account information across the mobile platforms.

### Token-Based Authentication and Data Security

Token-based authentication protected access to backend services, while sensitive user and integration data was encrypted and access scoped. User level controls ensured customers could only access their own account and transaction information.

### Data Privacy and On-Device Security

The mobile application was designed to minimize sensitive data stored on the device. PINs and OTP codes were not written to local storage, and locally stored user data was removed when the application was uninstalled. This helped limit access to account information outside an active session.

## TECHNOLOGIES & TOOLS



## Outcomes

7

months, from development to platform launch

20+

application modules built for the platform

11

currency corridors supported at launch

## ABOUT RISHABH SOFTWARE

As a Digital Engineering and Enterprise Transformation leader, we empower businesses to scale, innovate, and thrive in today's digital-first world through technology rooted in trust and transparency. We leverage emerging capabilities such as Cloud, Data Engineering & Analytics, AI, Automation and Application Engineering to drive digital transformation and unlock new opportunities. We have successfully served across 25+ countries, and we work towards customer delight as "WE CARE."

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